- For parameter Demeton, in the columns for A&Wc Chronic (µg/L), A&Ww Chronic (µg/L), and A&Wedw Chronic (µg/L), removed "0.01" and replaced with "0.1" to correct a typographical error in response to Comment 68.
- For parameter 1,4-Dichlorobenzene, in the column FBC (µg/L), removed "~~373,333~~ 373" and replaced with "373,333." In column PBC (µg/L), removed "~~373,333~~ 373" and replaced with "~~373.333~~373,333." This was done to correct typographical errors in the standards, the NPRM, and in response to Comment 69.
- For parameter Malathion, in the column FC(µg/L), removed "103" and replaced with "1,455" to correct a typographical error in response to Comment 59.
- For parameter Mirex, in column PBC (µg/L), removed "~~187~~ 0.26" and replaced with "187" to reflect the IRIS RfD (0.0002) for mirex, in response to comment 70.
- For parameter N-Nitrosodiphenylamine, renamed as "N-nitrosodi-n-phenylamine" to correct a typographical error in response to Comment 35.
- For parameter Nonylphenol, in the columns for A&Wc Acute (µg/L), A&Ww Acute (µg/L), A&Wedw Acute| (µg/L), and A&We Acute (µg/L), removed "27.8" and replaced with "28" to represent a rounding up of the 27.8 value, in response to comment 71.
- For the parameter Tetrachlorobenze,1,2,4,5, renamed the parameter "1,2,4,5-Tetrachlorobenzene" to correct an inadvertent error, in response to Comment 38.

Appendix A, Table 4

- In the column Chronic Aquatic and Wildlife coldwater, warmwater and edw, removed "~~19.8~~ 10.8" and replaced with 19.8 to correct a typographical error, in response to Comment 66.

Appendix A, Table 11

- Inserted language to clarify the application of the ammonia standard, in response to Comment 78.
- Inserted a comma to correct a typographical error in the formula at the end of the table.

Appendix A, Table 12

- Inserted language to clarify the application of the ammonia standard, in response to Comment 78.
- Inserted parentheses to correct a typographical error in the formula at the end of the table.

Appendix A, Table 13

- Inserted language to clarify the application of the ammonia standard, in response to Comment 78.

Appendix A, Table 14

- Inserted language to clarify the application of the ammonia standard, in response to Comment 78.
- Inserted a comma to correct a typographical error in the formula at the end of the table.

Appendix A, Table 15

- Inserted language to clarify the application of the ammonia standard, in response to Comment 78.

Appendix A, Table 16

- Inserted language to clarify the application of the ammonia standard, in response to Comment 78.

Appendix A, Table 17

- Inserted language to clarify the application of the ammonia standard, in response to Comment 78.

Appendix B

- Removed reference to "Steele Indian School Pond," and replaced with previous name, "Indian School Park Lake" in response to Comment 87.
- Renamed "Jack's Canyon Creek" to "Jacks Canyon Creek," "Havasu Canyon Creek" to "Havasu Creek," and "Martinez Creek" to "Martinez Wash," as well as references thereto, to conform with USGS topographic maps.
- Removed errant period in MG Salt River description.
- ADEQ is not removing Pretty Water Lake or its designated uses from Appendix B as originally proposed in the NPRM. ADEQ proposed to remove this waterbody because erroneous GIS data indicated that the lake was located in California and, therefore, outside of Arizona's CWA jurisdictional authority. The intended effect of this change was to improve the accuracy of Appendix B without affecting waterbodies or corresponding interests within State boundaries. New information now indicates that the GIS location within California was incorrect, and that additional information will be needed before further changes can be made. Therefore, ADEQ is not removing or changing the listing for Pretty Water Lake at this time. This is consistent with the intended effects of the NPRM in that it does not remove protections from any waterbody, or affect corresponding interests, within the State.

11. An agency's summary of the public or stakeholder comments made about the rulemaking and the agency response to the comments:

Comment 1: Pima County Administrator – Designated Uses

ADEQ has rejected Pima County's request to designate existing uses. We would like to urge ADEQ to designate, in this Triennial Review, at least the warm-water aquatic wildlife uses on County conservation lands we own (see attached table). ADEQ proposes to defer consideration until the next Triennial Review. We find no basis in the Clean Water Act to defer protection of existing uses of surface waters.

We have livestock and warm-water aquatic wildlife uses in Pima County that are not currently being protected. ADEQ's response to our request (Attachment 4) does not provide any further protection for Pima County's wildlife. It is not clear why existing wild-

life uses on our lands must wait for recognition until ADEQ is considering other wildlife uses elsewhere in the state. Our aquatic sites are discrete and unrelated to other aquatic wildlife waters in the state. We recognize that ADEQ may benefit from considering livestock watering in a state-wide context, but again question the legal basis for deferring any designation of an existing use on lands we own in fee.

ADEQ Response 1:

ADEQ did not propose substantive changes to Appendix B in this triennial review because the underlying definition of Waters of the United States is so unsettled at this point. The EPA and the U.S. Department of the Army have recently proposed a new definition of Waters of the United States that could provide greater clarity in the future. For this reason, ADEQ did not add any additional waters or designated uses to Appendix B during this triennial review.

ADEQ notes, however, that a water body need not necessarily be listed in Appendix B to receive the protection of water quality standards. Under the Tributaries Rule, aquatic and wildlife standards (among others) are applied to tributaries of listed surface waters. AAC R18-11-105. Thus, for tributaries of listed surface waters in Pima County (as well as elsewhere in the State), protections for aquatic and wildlife apply.

ADEQ also appreciates the efforts by Pima County to identify additional AgL uses. The methodology proposed by Pima County will require further evaluation before ADEQ can make a determination that a use is presently being attained. ADEQ would be required to provide documentation justifying how its consideration of the use and value of the water support the State's action. 40 C.F.R. § 131.10(a). A use attainability analysis could be used to meet this requirement, which ADEQ would also be required to conduct. *Id*; 40 C.F.R. § 131.10(j)(1). Such an analysis would require a structured, scientific assessment of the factors affecting the attainment of the use, which could include physical, chemical, biological, and economic factors. 40 C.F.R. § 131.3(g). Additionally, ADEQ will be required to consider water quality standards of any downstream waters. 40 C.F.R. § 131.10(b). Therefore, ADEQ will include these topics for review in the next triennial review.

Comment 2: Pima County Administrator – Public Hearing Requested

We ask that ADEQ hold a public hearing on the proposed rule in Tucson. We appreciate the public meetings that ADEQ has held in Tucson. All have been well-attended, and each has afforded ADEQ the opportunity to hear the preferences and experiences of local citizens in a way that is different from computer-assisted, WebEx meetings which have proved difficult to administer.

ADEQ Response 2:

ADEQ held stakeholder meetings in both Phoenix and Tucson to gather input throughout the triennial review process. ADEQ concluded this process with a recorded hearing in Phoenix to allow stakeholders to submit formal comments. ADEQ appreciates the desire for a public hearing in Pima County. However, during the public comment period, stakeholders are encouraged to submit written comments anytime during the comment period, and attend the public hearing as their schedules allow. Written comments receive the same weight as oral comments made at a hearing. Stakeholders may also contact ADEQ staff at any time, not just during the comment period, to discuss or submit letters or emails regarding any issues of concern to stakeholders.

Comment 3: Pima County Administrator –Protection for Outstanding Waters

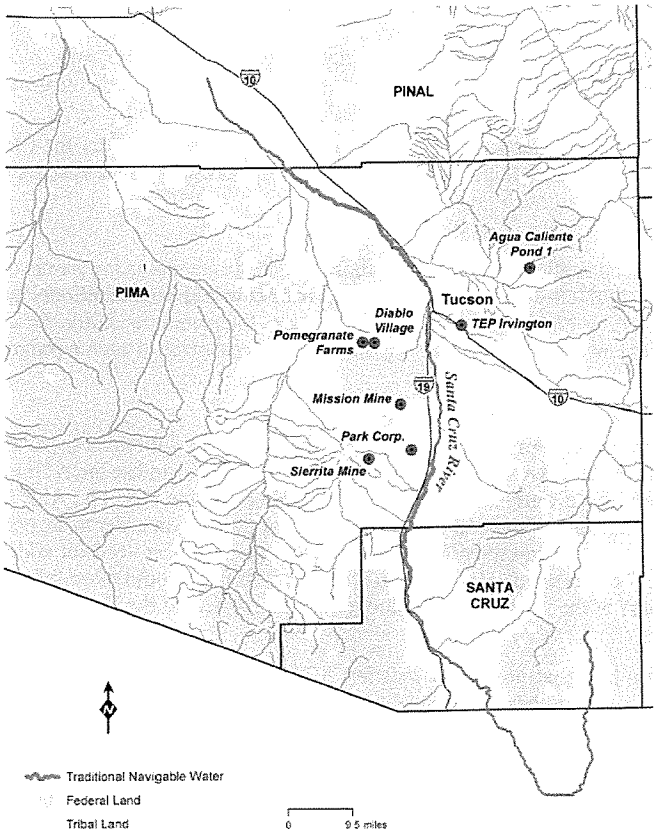
We are gratified to see that this proposed rule does not reduce any existing protections for Outstanding Waters per se.

ADEQ Response 3:

Thank you for the comment. ADEQ did not propose any revisions to the OAW rule during this triennial review.

Comment 4: Pima County Administrator – The Surface Water Definition Must Not be Narrowed

The proposed narrowing of the surface water definition to Navigable Waters, a term which is further defined in statute to mean Waters of the U.S., in the current rule proposal is of grave concern. Arizona needs to maintain a definition of surface water in the water quality rule that is expansive enough to include all surface waters that constitute "waters of the state" in accordance with that statutory definition in A.R.S. §49-201(41). The existing definition is sufficiently broad to allow ADEQ to develop rules for waters of the state, which would be distinct from Waters of the U.S. The proposed restriction of the definition is not. For this reason, we oppose narrowing the definition of surface waters in Rule 18-11. As you know, many streams and water bodies have already been classified by the U. S. Army Corps of Engineers as lacking sufficient connection to a traditionally navigable Water of the U. S. to merit continued regulation under the Clean Water Act. My staff has mapped the locations in Pima County where the U. S. Army Corps of Engineers has determined certain water bodies are no longer Waters of the U.S. *[Map provided in Attachment 5, a black on white version is presented below]* Because ADEQ has not adopted any rules for these and other surface waters in Arizona that are no longer Waters of the U.S., the state cannot continue to regulate the discharge of pollutants at these locations via the existing Clean Water Act permits. ADEQ has compiled a state-wide inventory of waterbodies listed in Appendix B that are no longer regulated under the Clean Water Act, along with those that may no longer be regulated under the existing definition of Waters of the U.S. Narrowing the definition of surface water to exclude waters of the state while retaining waters of the state in Appendix B, as is currently proposed, will create an inaccurate record.



ADEQ Response 4:

As stated in the preamble discussing the change to the definition of "surface water," under the section titled "*New or Modified Definitions [R18-11-101]*," the definition of "surface water" in Article 1 has been intended, throughout the years, to align with the federal definition. This is because the definition establishes the foundation upon which ADEQ's federally based programs are built. Unless specifically authorized by the legislature, in applying these federal programs, ADEQ must be consistent with and no more stringent than the corresponding federal law. *See* A.R.S. §§ 49-104(A)(16); 49-255.01(B). These federal programs are established to protect waters of the United States. These are the only waters for which the federal government shares oversight jurisdiction with the state under the CWA. Therefore, our interpretation of the definition of "surface water" in A.A.C. Title 18, Chapter 11, Art. 1 must be consistent with the federal definition.

Water quality standards under the CWA apply to waters of the United States. Because of this, it is important to be clear which waters are currently federally jurisdictional. This ensures that NDPES and other CWA program requirements are met and that communication between the state and EPA, in its oversight role, is clear.

For example, under the Clean Water Act, the discharge of any pollutant by any person from any point source into waters of the United States is prohibited unless the source has a NPDES permit. *See* 33 U.S.C. § 1311(a). ADEQ has primacy over the NPDES program in Arizona, called AZPDES. NPDES permits must include appropriate limitations to ensure that water quality standards established under the CWA will be met in the event that technology-based CWA-required treatment is not enough to ensure the attainment of such standards. *See* 33 U.S.C. § 1311(b)(1)(C). EPA has the opportunity to review and object to permits that do not adequately meet water quality standards. *See* 33 U.S.C. § 1342(d). It is important then that it is clear over which waters and standards EPA has authority to review and object to a permit in order to prevent confusion and rework.

ADEQ also notes that future adjustments to Appendix B may be needed as the definition of waters of the United States becomes clearer. However, as stated in the preamble, ADEQ is not making substantive changes to Appendix B because the underlying definition of waters of the United States is so unsettled at this point. Until the scope of waters of the United States is clearer, changes made to Appendix B could lead to further confusion and inaccuracies. ADEQ, therefore, declines to make substantive changes to Appendix B.

Comment 5: Pima County Administrator – Adopt Water Quality Standards for Waters of the State

Arizona Revised Statutes §49-203 gives ADEQ the authority to adopt standards for waters of the state determined through future Approved Jurisdictional Determinations or federal Waters of the U.S. rule changes. We urge ADEQ to adopt water quality standards for streams that would allow for continued and uniform enforcement of the standard so that these could be applied to new or existing discharges of pollutants to streams (or tributaries of streams) that lose Waters of the U.S. status. The increasing discrepancy between regulated versus non-regulated stream reaches is confusing and potentially dangerous to applicants who propose to discharge into watercourses. A change in the definition of Waters of the U.S. could result in the loss of any protection to a watercourse. If further changes to the definition occur due to lawsuits, which are anticipated, there is a risk to the discharger. By devel-

oping water quality standards for the waters of the state, this risk is reduced since protections to these water bodies will remain. Counties in the state of Arizona cannot fill the governance gap left by the continued erosion of the Clean Water Act's scope because the power to regulate discharges of pollutants is reserved to the state. State assumption of the current Corps' role in determining jurisdiction will not fill the gap. Indeed, if the state takes up the Corps' role, the state may well accelerate the growth of this emerging class of unregulated streams and lakes.

Because of the need for addressing the growing number of streams and lakes that are no longer regulated under the Clean Water Act, ADEQ should more fully develop in rule the ability to regulate pollutant discharges to waters of the state that are no longer deemed waters of the US.

ADEQ Response 5:

Thank you for your comment. ADEQ notes that while it currently does have the authority to create standards for waters of the state that are not waters of the United States (i.e. federal "navigable waters" under the CWA), ADEQ would need additional authority to broadly implement such standards at this time. *See* A.R.S. § 49-221(B). ADEQ acknowledges the recommendation for a waters of the state program, and intends to evaluate the possibility of pursuing such a program. Any development of such a program would be preceded by significant interaction with stakeholders and the general public.

Comment 6: Pima County Administrator – Use the Aquifer Protection Program

Arizona already has a well-established Aquifer Protection Program (APP) that regulates the release of pollutants to isolated bodies of water where there is a reasonable probability that the pollutant may reach an aquifer. We urge ADEQ to use the APP to establish permitting for point source discharges to waterbodies that are waters of state that are not Waters of the U.S. The APP is a permit program that could be adopted to utilize surface water standards identified in rule for waters of the state in order to set permit limits and regulate facilities in a similar manner to what is now done in the AZPDES program. Because of the need for addressing the growing number of streams and lakes that are no longer regulated under the Clean Water Act, ADEQ should more fully develop in rule the ability to regulate pollutant discharges to waters of the state that are no longer deemed waters of the US.

ADEQ Response 6:

Were the WOTUS definition to change as is currently being proposed, the existing APP program would offer protection to the level of the Aquifer Water Quality standards for discharges that have a reasonable probability of reaching an aquifer. As stated in prior responses, ADEQ intends to evaluate the possibility of establishing a waters of the state program. Adapting the existing APP program may be one avenue by which non-WOTUS waters of the state could be provided protection; this option and others identified by ADEQ and via the associated stakeholder engagement process will be further explored in the course of that evaluation.

Comment 7: Pima County Administrator –Public process: Notification of rulemaking

Comment: ADEQ notification process biases its outreach to members of the regulated community. ADEQ should make an effort to provide a more general notification to affected communities at the beginning of each Triennial Review. ADEQ should broaden its notification methods, prior to the release of this year's public rule.

ADEQ Response 7:

Thank you for your comment. ADEQ is currently revaluating its Triennial Review process flow and will consider this recommendation in its reevaluation of the process. However, ADEQ notes that the mailings have been sent out to thousands of interested persons for each public stakeholder meeting and notification of draft or proposed rules for this rulemaking. The last mailing for the proposed rule and comment period went out to 5,407 recipients.

Comment 8: Pima County Administrator –Tribal engagement

Issue: Changes proposed by ADEQ could affect many streams that cross tribal lands.

Comment: Outreach and engagement with tribes is appropriate.

ADEQ Response 8:

Thank you for your comment. The rulemaking process is open to all residents of the state, including tribes, with the corresponding ability to engage and participate. During this current triennial review, ADEQ sent notices to representatives of Tribal Nations with an invitation to participate. Additionally, ADEQ is actively working to improve its tribal consultation policy and engagement processes.

Comment 9: Pima County Administrator – ARS 49-221, AAC R18-11-101 (41) Surface Water Definition

Issue: Current definition of "Surface water" within AAC R18-11-101 (41) is broader than CWA.

Comment: ADEQ should propose and adopt rules to provide water quality standards for waters of the state, instead of narrowing the definition to align with WOTUS. Past decisions of the U. S. Army Corps have identified waters of the state that are not Waters of the US (WOTUS). Narrowing the definition to mean only navigable waters will change which watercourses are regulated under these rules. Even without the rule revision, the Corps are determining more streams non-navigable each year.

The term "surface waters" should include all above-ground waters in the state with "navigable waters" as a subset covering those surface waters subject to federal jurisdiction. Non-WOTUS surface waters in the state demand protection. Writing them out of the "surface water" definition makes that impossible.

The definition of WOTUS is still unclear in most parts of the state. The Corps' AJDs are made only on a project-level, not a watershed level; this piecemeal approach is another reason why aligning to WOTUS decisions should be deferred, at least until and unless ADEQ is able to assume the jurisdictional determinations.

ADEQ has not afforded the public an opportunity to understand the consequences of changing this definition. This idea was rejected by the designated-use workgroup because of the uncertainty in the direction of the national WOTUS rule.

We note that Appendix B still includes waters of state that the Corps has determined are not waters of the US. Narrowing the surface water definition while retaining the current Appendix B creates unresolved inconsistencies, indeed inaccuracies, within the rule itself. Allowing for the adoption of rules to provide water quality standards for waters of the state will preserve the protections to waters in Appendix B.

ADEQ Response 9:

Thank you for your comment. Please see Responses 4 and 5 above.

ADEQ has consistently interpreted the definition of "surface water" to mean "waters of the United States." Indeed, the existing standards were developed and approved under CWA authority. Therefore, there is no practical difference between applying statutory definition of "navigable waters" and the current rule definition. The analysis on the ground is the same and is based on federal guidance and case law.

In the event that the definition of waters of the United States should narrow, ADEQ would not be authorized to implement AAC R18-11-101 et seq. standards as they are currently applied. To systematically implement waters of the state standards, ADEQ would need additional statutory authority.

Comment 10: Pima County Administrator – Effluent Dependent Water Definition

Issue: Current definition of "Effluent Dependent Water" (EDW) within AAC R18-11-101 (17).

Comment: Revise to provide greater clarity for effluent dependent water definition.

ADEQ Response 10:

During its review of the surface water quality standards, ADEQ established an Antidegradation and Effluent Dependent Waters (EDW) workgroup to provide technical recommendations regarding the antidegradation rule and EDW definition. The workgroup produced a document with its final recommendations, available on the ADEQ website at https://azdeq.gov/node/3933. In that document, the workgroup agreed that the EDW definition should be revised to account for infrequent, short-duration discharges that may not establish an effluent dependent water. However, there was no consensus as to the exact frequency or duration required to create an EDW.

In addition to the inability to agree on a specific definition for EDW, ADEQ identified a number of other issues that complicated any effort to revise the EDW definition. One such issue was that further research regarding frequency, duration, and volume of discharges, as well as a study of stream ecosystems created by point source discharges, would be needed to scientifically support a modification. For example, some stakeholders suggested that the EDW definition should be revised to define an EDW as a waterbody that consists of a discharge that continues for longer than 14 days more than two times per year. However, it is unclear how the suggested duration and frequency was determined, and there are likely instances in which a permittee may discharge for shorter periods than 14 days much more frequently than twice per year. Another issue was that if the definition of EDW were to change, that would change the application of the surface water quality standards. Therefore, ADEQ would need to ensure that any change for each applicable water body would be justifiable under the Clean Water Act. See 40 C.F.R. § 131.10(a). Because of the complex issues surrounding a change to the EDW rule, ADEQ elected not to modify the definition of EDW in this triennial review. ADEQ will consider this issue in the next triennial review.

Comment 11: Pima County Administrator – AAC R18-11-101(30) Perennial Definition

Issue: Current definition of "Perennial water" within AAC R18-11-101(30).

Comment: We support this change.

ADEQ Response 11:

Thank you for your comment. ADEQ notes that it is not proposing changes to the definition of "perennial water" at this time.

Comment 12: Pima County Administrator – Wastewater Definition

Issue: Current definition of "Wastewater" within AAC R18-11-101 (48), which defines by exclusion. At Pima County's request, ADEQ amended the workgroup charter to discuss topic of

Comment: Provide greater clarity for wastewater definition relevant to the applicability of effluent dependent water.

ADEQ Response 12:

In meetings of the Antidegradation and EDW workgroup (discussed in Response 10), there was also a suggestion that the definition of wastewater should be modified to mean only effluent from a sewage or industrial wastewater treatment facility. This was because EDW criteria were established based on studies and assumptions related to discharges of effluent from municipal wastewater treatment plants. However, "wastewater" as used in Chapter 11, Article 1 has a broader meaning than just treated water. Rather, the word is used to describe the water discharged from a point source, which may not always be treated. ADEQ is required to regulate all non-exempted discharges of pollutants from point sources, whether the discharged water is treated or not. *See* 33 U.S.C. § 1311(a). Therefore, considering the use of "wastewater" throughout Chapter 11, Article 1, and its broad meaning, the term cannot be limited to only treated water.

In the 2008 triennial review, ADEQ explained that "wastewater" is a broader term than "treated wastewater" and must be applied broadly to comply with CWA requirements. 14 AAR 4713 (December 20, 2008). Depending on the particular circumstance, the discharge of untreated wastewater from a point source may still comply with applicable standards, regulations, and permit conditions. The 2008 triennial review used the example of a point source discharge consisting of untreated cooling wastewater from a power plant to ephemeral water. However, "discharge of wastewater" as used in the rules is more limited than "discharge of pollutants" because wastewater is defined by what it is not, excluding certain classes of pollutant discharges (e.g. stormwater). ADEQ considered modifying the term "wastewater," but could not find a different term that adequately accounted for everything that "wastewater" is, as it is used in this article. Therefore, ADEQ intends to retain the term "wastewater" as it is currently defined.

Comment 13: Pima County Administrator – R18-11-102 Applicability to Riparian Projects

Exempt riparian restoration projects. The rationale for this change is that riparian restoration projects as described would be using high-quality recycled water, and would be operated in a manner that would prohibit discharge to surface water under normal operating conditions. In addition, ADEQ already has the Recycled Water Rules permit program, under which these facilities may be reviewed and approved for permit.

ADEQ Response 13:

ADEQ appreciates the comment. The addition of the suggested new exemption listing under R18-11-102 is a new idea which would take considerable time to evaluate. Therefore, ADEQ recommends submitting the idea for consideration in the 2022 triennial review. However, ADEQ notes that surface water quality standards apply to align with federal law. Under the Clean Water Act, the discharge of any pollutant by any person from any point source into waters of the United States is prohibited unless the source has a permit to do so. *See* 33 U.S.C. § 1311(a). If a project is anticipated to produce a discharge regulated under CWA, and is not authorized to do so, the discharge would be a violation of the CWA. ADEQ cannot exempt a class of likely dischargers to a water of the United States from its water quality standards, nor could EPA approve such an action.

Comment 14: Pima County Administrator –R18-11-102 Applicability to Pits

At Issue: (B)(2) A man-made surface impoundment and any associated ditch and conveyance used in the extraction, beneficiation, or processing of metallic ores that is not a surface water or is located in an area that once was a surface water but is no longer a surface water because it has been and remains legally converted, including

a. A pit,

Comment: ADEQ should remove the exemption in the rule R18-11-102.B.2. (Applicability) that exempts pit lakes from surface water quality standards. These should be considered waters of the state.

ADEQ Response 14:

The surface water quality standards contained in R18-11-1 only apply to a surface water. As stated in R18-11-101, a surface water is defined as a water of the United States. Since 102(B)(2) specifically relates to waters that are not or are no longer surface waters, the surface water quality standards do not apply. As such, the surface water standards set forth in Title 18, Chapter 11, Article 1 will not apply to any pit that is not a surface water. Although ADEQ has authority to adopt water quality standards for waters of the state, there is no current rule-making process to adopt state standards. However, ADEQ will engage stakeholders on any future rule-making.

Comment 15: Pima County Administrator –AAC R18-11-105, Appendix B, Designated Uses

Issue: NO ACTION to update Appendix B to improve the accuracy of designated uses. ADEQ by letter informed Pima County that they will defer until a future TR.

Comment: Define new designated uses to tributaries where warranted to protect existing uses on County-owned lands. We have AgL and A&Ww uses in Pima County that are not being protected by ADEQ's response to our request dated 12/18/2018 (attached). There is no reason why existing wildlife uses on our lands must wait for recognition until ADEQ is considering other wildlife uses elsewhere in the state.

Likewise, amend Appendix B to better identify the isolated lakes and ponds that have already been determined to be waters of the state by the Corps. Consider creation of a separate Waters of the State list (possibly adding an Appendix C) so it is clear that associated designated uses are no longer protected under the Clean Water Act.

ADEQ Response 15:

ADEQ did not propose substantive changes to Appendix B because the underlying definition of Waters of the United States is so unsettled at this point. The EPA and the U.S. Department of the Army have recently proposed a new definition of Waters of the United States that could provide greater clarity in the future. ADEQ also notes that the Army Corps of Engineers does not make waters of the State determinations.

As for additional designated use determinations, please see Response 1.

Comment 16: Pima County Administrator –AAC R18-11- 107.01(C)(4) Tier 3

Issue: Proposed to move OAW language in (C)(4) into its own new section (C)(5) and clarify occurrence of temporary impacts cannot be "regularly occurring" The proposed change broadens the allowance of temporary impacts to Tier 3 protected OAWs so that it would include discharges beyond those regulated under §404 which require §401 approval.

Comment: The suggested use of the term "regularly occurring" in an attempt to better clarify the occurrence of temporary impacts instead invites further confusion. We do support the move of OAW language in (C)(4) into its own new section (C)(5).

ADEQ Response 16:

ADEQ understands the comment to mean that AAC R18-11-107.01(C)(4) will apply to §404 discharges that may affect existing water quality in an OAW, and not only those that require §401 approval. This is consistent with the text of the rule. ADEQ proposed moving the allowable temporary impacts from R18-11-107.01 (C)(4) into its own section (C)(5) in early triennial review discussions, but that proposal was not included in the NPRM nor will it be part of the NFRM. ADEQ's position is that the term "regularly occurring" serves to better show what qualifies as a temporary water quality impact. While ADEQ declines to define the term in the rule, ADEQ notes here that the intent is to protect OAWs from impacts that may be less than 6 months in duration but occur every 3 months, for example.

Comment 17: Pima County Administrator –AAC R18-11-107.01 Tier 2

Consideration should be given to broaden Tier 2 antidegradation standards to include intermittent streams, as well as ephemeral

reaches that are directly adjacent to or tributary to intermittent or perennial streams during the Triennial Review.

ADEQ Response 17:

ADEQ has established that the most current, scientifically defensible methodology for allocating a Tier class is by flow-regime. Significant degradation for a Tier 2 water is determined at critical flow conditions, R18-11-107.01(B)(2). R18-11-101(13) defines critical flow condition as the "lowest flow condition over seven days that has a probability of occurring once in ten years (7Q10)." Since both ephemeral and intermittent waters have extended periods of no flow, it is not possible to determine if significant degradation to water quality would occur when there is no water in the stream channel. Tier 1 antidegradation protection is therefore applied to ephemeral and intermittent waters unless an intermittent water is an OAW, where Tier 3 would apply.

Comment 18: Pima County Administrator – AAC R18-11-107.01(B)(3)(c) Tier 2 baseline

Issue: To renumber the Baseline Characterization section from R18-11-107.01(B)(3)(c) to R18-11-107.01(B)(3)(a).

Comment: We support this change.

ADEQ Response 18:

Thank you for the comment.

Comment 19: Pima County Administrator –AAC R18-11- 107(D) OAW

Issue: The anti-degradation policy prohibits any degradation of an OAW, requiring existing water quality to be maintained and protected as a "Tier 3" water.

Comment: We support the current language preventing degradation of OAWs, and are pleased to see that ADEQ rejected Hudbay's proposal to weaken protections for these streams.

ADEQ Response 19:

Thank you for the comment.

Comment 20: Pima County Administrator –R18-11-109(A).

Issues:

- New standard "Statistical Threshold Value" replaces "Single Sample Maximum" and is ambiguous regarding the confidence intervals.
- Provide SWQS consistent with scientific studies.

Comment: ADEQ proposes to use the new term "statistical threshold value" (STV) in place of "single sample maximum" (SSM). While STV is consistent with EPA's criteria, the new term is confusing because it implies the data must be evaluated statistically, instead ADEQ means that the number 410 was statistically derived. Clarification can be provided by 1) adding a footnote to the term that STV means SSM or 2) adding a new definition for STV in R18-11-101.

ADEQ Response 20:

As Pima County noted, ADEQ is removing the term "Single Sample Maximum" and replacing it with "Statistical Threshold Value" in R18-11-109(A) to be consistent with EPA's 2012 Recreational Water Quality Criteria. Pima County is correct that the Statistical Threshold Value is statistically derived based on the 90^{th} percentile distribution of the water quality data used to calculate the geometric mean criteria. Using the 90^{th} percentile statistical value accounts for natural variability while limiting the number of allowable exceedances prior to determining a water is impaired. The Single Sample Maximum values were often interpreted to be "never to exceed" thresholds. That interpretation is more stringent that the 1986 Beach Act intended. As such, ADEQ declines to define the Statistical Threshold Value as the Single Sample Maximum as this could perpetuate this misunderstanding. However, ADEQ reiterates that the commenter is correct that the Statistical Threshold Value is a static number for purposes of these rules.

Comment 21: Pima County Administrator – Antidegradation reviews for CWA 401 certifications

Issue: ADEQ is proposing modification to antidegradation criteria to ensure there will be a legal mechanism to account for review of 404 permits issued by state. For state-issued 404, 401 does not apply and certification is not required.

Comment: Arizona's water bodies are principally ephemeral streams. Perennial waters are few in number, and their chemical, physical and biological integrity is greatly affected by the more numerous ephemeral and intermittent tributaries cited here, and attached for your convenience. Because of these relationships, and the extreme variability in our climate (also discussed in the attached paper), it makes little sense to limit Tier 2 designations based on rigid and imperfect distinctions on flow regime. Consideration should be given to broaden Tier 2 antidegradation standards to include intermittent streams, as well as ephemeral reaches that are directly adjacent to or tributary to intermittent or perennial streams during the Triennial Review.

ADEQ Response 21:

The comment here does not seem to relate directly to the issue identified above it. Regarding that issue (antidegradation of 404 permits issued by the state), please see the explanation in the preamble for the modifications to R18-11-107.01 and the response to Comment 29. As for broadening Tier 2 antidegradation review, please see Response 17.

Comment 22: Pima County Administrator – R18-11-112(D)(1) OAW

Criteria for flow regime and "free-flowing condition" was added in 2002 rulemaking. Support deletion of flow regime criterion entirely. Most states do not use this as a criterion. Most streams in Arizona are not perennial, but there is limited information about intermittency. Because of this, and the extreme variability in our climate, it makes little sense to limit based on rigid and imperfect classification of flow regime.

ADEQ Response 22:

ADEQ acknowledges the concern regarding use of perennial or intermittent flows as a criterion for OAW nomination; however, ADEQ is not proposing any revisions to the OAW rule during this triennial review. This flow regime question was the subject of Charter Question #4 of the OAW Workgroup convened in November 2017 to analyze the OAW rule and provide recommendations to ADEQ. Workgroup members did not reach consensus, but did identify three positions: 1) drop the flow requirement provision entirely, 2) retain the current language, and 3) limit OAW designations to perennial waters only. For more information, the Workgroup discussion was summarized in the "Final Recommendations" document, posted on the ADEQ website at http://azdeq.gov/node/3933. ADEQ will consider the Workgroup recommendations during the next triennial review.

Comment 23: Pima County Administrator – R18-11-120: Enforcement

Issue: Delete an enforcement provision in R18-11-120(a) and (d). Alter (b) and (c).

Comment: If ADEQ merely wants to clarify that exceedances from permitted discharges are not subject to enforcement due to the permit shield, then that would be consistent with federal law for numeric standards. But the current wording is not entirely clear, so we oppose it as written. This could be discussed during the next Triennial Review.

ADEQ Response 23:

ADEQ recognizes that some ambiguity existed in the proposed rule and has added language to the enforcement rule to clarify that it will not apply to discharges regulated under a permit.

As stated previously by ADEQ, the enforcement rule at R18-11-120 does not apply to permit violations. In its response to comments in the 2002 triennial review rulemaking, ADEQ stated that this rule did not apply to discharge limitations in NPDES permits or how EPA enforces those permit conditions." *NFRM,* 8 A.A.R. 1264, 1393 (Mar. 29, 2002). Likewise, now that ADEQ has obtained federal approval of its AZPDES program, this enforcement rule does not apply to exceedances of limits or noncompliance with conditions in current permits.

In order to clarify this point, ADEQ has added the following language to subsection (B):

> For the purposes of this section, a "non-permitted discharge violation" does not include a discharge regulated under an AZPDES.

Additionally, the commenter postulates that ADEQ is attempting to clarify that "exceedances from permitted discharges are not subject to enforcement due to the permit shield...." ADEQ wishes to make clear that this rule does not apply to the application of a permit shield, and that any inference that the enforcement rule or statements made in this rulemaking articulate a standard for application of a "permit shield" for permitted facilities is incorrect. A permit shield protects permit holders from certain legal liabilities, provided the relevant permit holder complies with the terms of its permit. CWA § 402(k); see also A.R.S. § 49-255.01(F); A.A.C. R18-9-A904(A). Any application of a permit shield would necessarily involve compliance with a permit, and ADEQ has made clear that this enforcement rule does not apply to discharges regulated under a current permit. Therefore, this rule does not and cannot create any standard for application of a permit shield.

Comment 24: Arizona Mining Association (AMA) - AMA Supports ADEQ's Proposed Change to the Definition of "Surface Water" in R18-11- 101.

ADEQ proposes to change the definition of "surface water" in R18-11-101(45) to mean "navigable waters" as defined in A.R.S. § 49-201(22). AMA supports this change. A.R.S. § 49-201(22) defines "navigable waters" to correspond with the federal definition of "waters of the United States" (WOTUS) under the CWA. The proposed revision to the regulatory definition of "surface water" will allow it to be consistent with governing state and federal law and provide needed flexibility in light of the uncertainty surrounding the federal WOTUS definition.

By contrast, retaining the current definition would create confusion, as that definition is not consistent with (1) the scope of WOTUS as implemented in Arizona today (using guidance issued by EPA and the Corps following the Supreme Court's decision in *Rapanos v. United States*, 547 U.S. 715 (2006)); (2) the scope of WOTUS included in the 2015 definition of WOTUS adopted by EPA and the Corps (but not applicable in Arizona as a result of an injunction issued in *State of North Dakota et al. v. United States*, 127 F. Supp. 3d 1047 (D.N.D. 2015)); and (3) the scope of WOTUS included in the rule recently proposed by EPA and the Corps (84 Fed. Reg. 4154 (February 14, 2019)).

ADEQ correctly notes in the preamble that the existing surface water quality standards have historically been designed to align with federal requirements and implement the federal definition. ADEQ has been quite clear on this point in the past. *See, e.g.*, 8 Ariz. Admin. Reg. 1264, 1273 (March 29, 2002) ("the surface water quality standards apply to "navigable waters" as defined in the Clean Water Act. That is, they apply to waters of the United States.") (preamble to final 2002 triennial review rules). This is more than a matter of administrative discretion; the process followed by ADEQ to adopt the existing standards is one mandated under the Clean Water Act *only* for navigable waters as defined in that statute (*i.e.*, waters of the United States). *See* 40 C.F.R. § 131.3(i) (defining "water quality standards" as uses and criteria adopted "for the waters of the United States"). Moreover, even though ADEQ does possess the authority to adopt standards for "waters of the state" that do not constitute waters of the United States, it must follow a somewhat different process when doing so. Specifically, in adopting standards for waters of the state that are not waters of the United States, ADEQ must consider additional factors that it need not consider when adopting standards for waters of the United States. *See* A.R.S. § 49-221(B). ADEQ has not evaluated those additional factors when adopting the existing surface water quality standards in Title 18, Chapter 11, Article 1.

For all the foregoing reasons, AMA supports the proposal to modify the definition of "surface water" in A.A.C. R18-11-101 to track the definition of "navigable waters" provided in A.R.S. § 49-201 and used to implement Clean Water Act programs.

ADEQ Response 24:

Thank you for your comment.

Comment 25: Arizona Mining Association - AMA Strongly Disagrees with ADEQ's Proposed Changes to the Enforcement

Rule, R18-11-120, and the Preamble Language Regarding the Scope and Applicability of the Rule

ADEQ proposes to modify R18-11-120 to "clarify that enforcement for all numeric standards, except for [aquatic and wildlife] chronic standards, would be determined by analysis of a single sample." 25 Ariz. Admin. Reg. 177, 186 (Feb. 1, 2019). This proposal plainly lacks any basis in law or fact, is inconsistent with existing water quality standards and must be abandoned. The illegality of the proposed revisions is demonstrated by the fact that multiple water quality standards expressly require more than one sample for purposes of determining compliance. For example:

- Suspended sediment concentration — must be determined from "a minimum of four samples collected at least seven days apart." A.A.C. R18-11-109(D).
- Nutrient criteria — must be determined from "[a] minimum of 10 samples, each taken at least 10 days apart in a consecutive 12-month period," which are then used to determine a 90th percentile that 10 percent of the samples may not exceed. A.A.C. R18-11-109(F).

Additionally, AMA has serious concerns with ADEQ's preamble language relating to the scope and applicability of R18-11-120. First, ADEQ states that this rule "should only apply to non-permitted discharges." 25 Ariz. Admin. Reg. at 186. This statement and the discussion that follows appear to reflect confusion between compliance with water-quality based effluent limitations for discharges subject to individual AZPDES permitting and compliance with water quality standards in the receiving water. R18-11-120 does not apply to "discharges" at all; it applies only to compliance with water quality standards in the receiving water. This remains true both in the permitted and non-permitted context. For example, if a permit includes a condition that requires sampling in the receiving water body, the sampling requirements specified in the applicable water quality standard would apply—such as "four samples collected at least seven days apart" in the case of suspended sediment. For ADEQ to attempt to modify the enforcement rule to avoid or override the sampling requirements in the water quality standards is arbitrary and unsupportable.

Second, ADEQ states that the enforcement rule is "not intended for CWA assessment purposes." 25 Ariz. Admin. Reg. at 186. This clearly contradicts agency statements in preambles to prior rulemakings.

Specifically, in ADEQ's 2002 preamble to the revision of R18-11-120, ADEQ clearly indicated that R18-11- 120 was relevant to, and in fact guided, the agency's "ongoing monitoring of the surface waters in the state." 8 Ariz. Admin. Reg. at 1315. The agency further explained that "ADEQ amended R18-11-120 to make it possible to assess compliance with chronic A&W water quality standards." *Id.* In its preamble to the 2002 revision of the impaired water identification rule (in Title 18, Chapter 11, Article 6 of the Arizona Administrative Code), ADEQ recognized that certain water quality standards, such as chronic aquatic and wildlife criteria, require "similar, multiple sampling events to amass the minimum number of samples to perform the necessary statistics" and do "not allow for a one time or nonrecurring event to serve as justification for listing a stream"). 8 Ariz. Admin. Reg. 3394, 3396-97, 3446 (Aug. 9, 2002). Clearly, the chronic compliance language in R18-11-120 is applicable to assessment and impairment determinations, consistent with Arizona's impaired water identification rule and prior express statements in the revisions made to R18-11-120. In the current proposal, ADEQ attempts to get around these earlier preamble statements by citing to a 2004 prepared statement by Deputy Administrative Counsel Joan Card before the Governor's Regulatory Review Council. This is unavailing. ADEQ's prior statements in regulatory preambles, which explain the agency's official intent and justification for the rule, bear more weight than, and are not nullified by, later remarks of its counsel.

In light of ADEQ's past inconsistent statements on the application and intent of R18-11-120, we recommend that ADEQ not make any changes to R18-11-120 and not include in the final preamble any statements attempting to clarify the rule's scope at this time. Such changes should be made, if at all, at a future time after the application of the language in R18-11-120 is clarified in the context of changes to Arizona's impaired water identification rule.

ADEQ Response 25:

ADEQ acknowledges its oversight in the language regarding use of a single sample, and thanks the commenter for raising the issue. The Department has added clarifying language to the enforcement rule such that, except for chronic aquatic and wildlife criteria, the department will determine compliance with numeric water quality standard criteria from the analytical result of a single sample "unless additional samples are required under this article."

However, ADEQ disagrees with the remaining points made in this comment. CWA assessments and 303(d) listing processes are not enforcement actions. The comment incorrectly conflates these distinctions in an attempt to require ADEQ to use enforcement methodologies and sampling requirements for CWA assessments and 303(d) listing determinations. However, ADEQ rejects this position as evidenced by its statements in prior rulemakings and by ADEQ counsel.

Under the CWA, ADEQ is required to assess whether a water or segment of a water of the United States in Arizona is attaining designated uses or not, and submit this information the EPA in what is known as a 305(b) report. *See,* CWA § 305(b). Additionally, ADEQ must provide the EPA with a list of impaired waters, which are those waters identified in the 305(b) report as not attaining water quality standards. *See,* CWA § 303(d). This list, known as the 303(d) list, prioritizes those impaired waters for calculations of total maximum daily loads for each pollutant impairing the water. *Id.* In conducting assessments for use in the 305(b) report or 303(d) list, ADEQ must follow the relevant sampling requirements as set forth in A.A.C. Chapter 11, Article 1, as well as requirements on data interpretation and credibility in A.A.C. Chapter 11, Article 6.

Enforcement actions are distinct from CWA assessments and 303(d) listing processes identified above. In an attempt to conflate the two principles (between causing a water quality violation and water impairment listings), the comment quotes statements made by ADEQ in the preamble to the 2002 water quality standards revisions. However, the quoted statements do not support the argument that enforcement actions should apply the sampling requirements for assessment and listing decisions. For example, the comment stated,

> ADEQ recognized that certain water quality standards, such as chronic aquatic and wildlife criteria, require "similar, multiple sampling events to amass the minimum number of samples to perform the necessary statistics" and do "not allow for a one time or nonrecurring event to serve as justification for listing a stream."

The statements quoted in the comment reference the sampling requirements for CWA assessments, not enforcement actions. Indeed, the last quoted sentence expressly stated that the sampling requirements applied to "justification for *listing* a stream." (Emphasis added). Later in that same preamble, ADEQ clarified that "[t]he Department has repeatedly stated that the assessment and listing processes are *not enforcement* actions...." 8 Ariz. Admin. Reg. 3419 (Aug. 9, 2002) (emphasis added).

The comment also cites to the preamble of the last revision of the enforcement rule, arguing that ADEQ "clearly indicated" that the enforcement rule "was relevant to, and in fact guided, the agency's 'ongoing monitoring of the surface waters in the state.'" ADEQ acknowledges that the language referenced by the comment was unclear. However, context is key. Within the context of other statements made in that same preamble, statements made in the preamble of the 2002 water quality standards revisions, and statements of ADEQ counsel, it is clear that enforcement actions are distinct from CWA assessments and 303(d) listing determinations. Arizona's waters are diverse, geographically distant, and often remote. The realities of enforcement *and* assessment are such that ADEQ monitoring efforts may be tailored to allow for both. However, this does not erase the distinction between the two. Indeed, later in the same preamble, ADEQ responded to a comment requesting that the enforcement rule follow the sample collection requirements of the impaired waters identification rule. ADEQ reiterated the distinction between enforcement and assessment, saying,

> The impaired water identification rule prescribes requirements for § 303(d) listing and the minimum requirements for data that is used for water quality assessment purposes. ADEQ may adopt different criteria for purposes of determining compliance with water quality standards.

8 Ariz. Admin. Reg. 1391 (Mar. 29, 2002).

Again in 2004, ADEQ clarified the distinction between enforcement and assessment and listing through statements by its counsel before the Governor's Regulatory Review Council. *See, Testimony by Joan Card, Deputy Administrative Counsel at ADEQ, 2004 Meeting of the Governor's Regulatory Review Council Minutes (Dec. 7, 2004).* Transcripts of that testimony state,

> Ms. Card said 605(D)(2)(b), which is at issue, is the listing standard. She said it is the standard the Department uses to determine whether a water should be included on the impaired waters list. It plainly says that more than one exceedance of a standard leads to listing. It does not address the sampling and assessment methodology as is done in 120(C). She said 120(C) was a different standard-- an enforcement standard versus a listing standard. She said what the impaired waters list does is allow the agency to go forward with creating further standards called TMDLs for an impaired stream. She said it is plainly different standard that is more protective of the critters in a stream than an enforcement standard, which would result in the Agency potentially taking a punitive action.

Id. The comment attempts to dismiss this testimony as unpersuasive because they were not included within the preamble of a rule. However, this testimony is consistent with, and gives further evidence of, the Department's interpretation of the enforcement rule.

ADEQ's position is that the sampling requirements of CWA assessments and 303(d) listing determinations do not apply to the enforcement rule, as seen in the preamble to the 2002 revision to the enforcement rule, the 2002 revisions to the water quality standards, statements by agency counsel, and again in this rulemaking. 8. Ariz. Admin. Reg. 1391 (Mar. 29, 2002); 8 Ariz. Admin. Reg. 3419 (Aug. 9, 2002); *Testimony by Joan Card, Deputy Administrative Counsel at ADEQ, 2004 Meeting of the Governor's Regulatory Review Council Minutes* (Dec. 7, 2004).

The comment also states that the enforcement rule "does not apply to 'discharges' at all," but to compliance with water quality standards. The point of this statement appears to be that assessment and listing determination sampling requirements should be required for enforcement actions, or vice versa. Again, the comment conflates enforcement and assessment, but this time couples it with a distinction regarding "discharges." ADEQ's enforcement authority allows ADEQ to take action against any person who violates a water quality standard. A.R.S. § 49-263(A)(4). Under the Clean Water Act, discharge means "any addition of any pollutant to navigable waters from any point source." CWA § 502(12). Surely, discharges are included as a primary way that a person would violate a water quality standard. ADEQ maintains that this enforcement rule only applies non-permitted discharges. However, assuming for the sake of argument that the enforcement rule did not apply to discharges, the fact remains that enforcement actions are distinct from CWA assessments and listing determinations and have distinct sampling requirements.

In light of the foregoing, the comment's assertion that the enforcement rule must use the same sampling requirements as CWA assessments and 303(d) determinations, or vice versa, is incorrect. However, ADEQ will evaluate its current Impaired Waters Identification Rule in the future, and will invite stakeholders to participate in that process. ADEQ will evaluate any suggestions stakeholders have regarding the Department's assessment methodologies at that time.

Comment 26: Arizona Mining Association - AMA Recommends Changes to R18-11-113(D) Regarding Effluent-Dependent Waters.

As ADEQ recognized in meetings with AMA, not all discharges of effluent to an ephemeral water justify automatic application of effluent-dependent water (EDW) criteria in the context of AZPDES permitting and ADEQ should have regulatory discretion to recognize such circumstances. Some proposed discharges will simply not create the type of conditions that the EDW criteria were intended to protect. Consequently, we request that the following change be made to subsection (D) of R18-11-113:

D. The Director ~~shall~~ may use the water quality standards that apply to an effluent-dependent water to derive water quality-based effluent limits for a point source discharge of wastewater to an ephemeral water.

ADEQ Response 26:

ADEQ agrees that the frequency, duration and magnitude of point sources discharges to ephemeral streams varies greatly in Ari-

zona and there is a need to develop criteria that further refine the application of AZPDES permitting requirements. However, simply changing "shall" to "may," as requested in R18-11-113(D), would add additional uncertainty as to the circumstances that ADEQ would classify a water as effluent-dependent as the rule is silent on the criteria ADEQ would use to determine a water is effluent-dependent. ADEQ will consider this issue in the next triennial review.

Comment 27: Arizona Mining Association - AMA Appreciates ADEQ's Commitment to Further Consider AMA's Concerns Regarding Natural Adaptive Process, Natural Background, Suspended Sediment Concentration, and the Definitions of "EDW" and "Wastewater"; AMA Would Also Like to Discuss Outstanding Arizona Water Issues as Part of Future Triennial Reviews.

ADEQ and AMA have previously discussed AMA's concerns regarding the current regulatory language on natural adaptive process (specifically, the proposed removal of that language), natural background and suspended sediment concentration in R18-11-115(B)(5), R18-11-119 and R18-11-109(D), respectively. AMA believes that these discussions have been fruitful to date and appreciates [ADEQ's] commitment to continue these discussions in the context of the next triennial review.

AMA also appreciates ADEQ's commitment to evaluate the definition of "effluent-dependent waters" (EDW) in the context of the next triennial review. Specifically, we ask ADEQ to appropriately evaluate what effluent flow may create the conditions appropriate for imposition of the criteria adopted for EDW and then to make appropriate changes to the definition. AMA further concurs with the recommendations made by ADEQ's Antidegradation and Effluent Dependent Waters Workgroup relating to EDWs (Topic #4) and the related definition of "wastewater" (Topic #5). In particular, AMA concurs with the workgroup recommendation that the "EDW definition should be revised to account for infrequent, short duration discharges that may not establish an [EDW]." This change is critical because the EDW criteria should be limited to waters permitted to receive treated waters on a consistent basis. AMA also agrees with the recommendation that the definition of "wastewater" needs to be revised to clarify that it means effluent from a domestic wastewater treatment plant or from an industrial treatment plant treating wastewater from an industrial process.

Finally, the AMA looks forward continuing to discuss Outstanding Arizona Water (OAW) issues in future triennial reviews. As was evident from the diversity of viewpoints expressed as part of the Outstanding Arizona Waters Workgroup convened by ADEQ during this triennial review process, this is a topic of great interest to many stakeholders. ADEQ proposed no changes to the OAW rules as part of this triennial review, but we believe there are issues that will need to be addressed in the future. As we have previously commented, the state is not required under the CWA to have an outstanding waters program, and many Western states do not have such programs. Given potential implementation issues, we believe that ADEQ should re-evaluate whether an OAW program is justified. If ADEQ decides to retain the OAW program, the AMA believes that ADEQ should establish minimum data quality and quantity requirements for demonstrating good water quality (which should remain a prerequisite to listing), and that such data should cover a wide range of stream conditions. If only limited data is gathered, or the data gathered covers only certain stream conditions, then it becomes very difficult to ascertain whether a regulated discharge is degrading existing water quality in a downstream OAW (the required analysis associated with a Tier 3 water pursuant to A.A.C. R18-11-107.01(C)(3)). There are numerous other issues associated with the current OAW program and rules, and the AMA hopes that ADEQ will be willing to discuss these issues and consider changes as part of future triennial reviews.

ADEQ Response 27:

ADEQ appreciates the AMA's comments and looks forward to working with all stakeholders during the next triennial review to address their suggestions, questions and concerns.

Comment 28: Arizona Mining Association - AMA Encourages ADEQ to Request that EPA Rescind 40 C.F.R. § 131.31(b), as Recommended by the Surface Waters and Designated Uses Workgroup

One of the consensus recommendations of the Surface Waters and Designated Uses Workgroup formed by ADEQ during this triennial review was that ADEQ should urge EPA to rescind 40 C.F.R. § 131.31(b). In that regulation, adopted in 1996, EPA assigned the fish consumption designated use to some Arizona waters, but indicated that it would remove those uses for segments where ADEQ demonstrated through a use attainability analysis (UAA) that fish consumption was not a designated use. Subsequent to the adoption of the EPA rule, ADEQ has either designated the fish consumption use, or submitted an approved UAA showing that the fish consumption use is not attainable, for every water covered in 40 C.F.R. § 131.31(b). Therefore, the federal rule is unnecessary for some waters (those where the fish consumption use has now been designated under state law), and inconsistent for others (those where ADEQ has since submitted, and EPA has approved, a UAA demonstrating that fish consumption is not an attainable use).

The AMA therefore urges ADEQ to follow through on the workgroup recommendation to request that EPA rescind 40 C.F.R. § 131.31(b). The workgroup recommendation and accompanying rationale is available at: http://static.azdeq.gov/wqd/tri_rev_topic3_finalrec.pdf.

ADEQ Response 28:

ADEQ recognizes the efforts of the Surface Waters and Designated Uses Workgroup and the recommendation that ADEQ request EPA to rescind that the federal rule because it is outdated. However, ADEQ has not implemented all of the fish consumption standards listed in 40 C.F.R. § 131.31 into Appendix B of the state standards rule. The designated uses of all fourteen surface waters must be evaluated to ensure that uses are being adequately protected under Appendix B before ADEQ can request repeal of the federal standards in 40 C.F.R. § 131.13. ADEQ will confer with EPA during the next triennial review regarding this issue.

Comment 29: Arizona Mining Association - Rationale for Legal Gap Modification Changes to A.A.C. R18-11-107.01

The AMA does not oppose the "legal gap modification" changes suggested to A.A.C. R18-11-107.01, which ADEQ proposed in order to provide flexibility in the event that Arizona assumes the Section 404 permit program at some point in the future. In the preamble explanation of those changes, ADEQ cites to an EPA guidance document (the Water Quality Standards Handbook) for the proposition that if a proposed discharge of dredged or fill material satisfies the prohibition against significant degradation con-

tained in the Section 404(b)(1) Guidelines (40 C.F.R. § 230.10(c)), it will be deemed consistent with the federal antidegradation requirement to protect existing uses. 25 Ariz. Admin. Reg. at 182-3. This is a reasonable approach, but the AMA believes that ADEQ should make clear that significant degradation in the context of the Guidelines and antidegradation in the context of the water quality standards are distinct concepts. Specifically, antidegradation focuses solely on water quality, whereas significant degradation may allow for consideration of broader factors. This distinction can be important when considering potential secondary effects of a discharge of dredged or fill material, particularly where such effects occur outside of the location where dredged or fill material is placed.

The AMA is not suggesting any changes to the proposed rule language, but believes some explanation of the differences between significant degradation under the Guidelines and antidegradation under A.A.C. R18- 11-107.01 may be appropriate in the preamble to the final rule.

The AMA and its member companies appreciate the opportunity to submit comments on ADEQ's proposed rulemaking on water quality standards. We respectfully request that you issue the final version of the water quality standards rulemaking consistent with these comments. If you have any questions or need any additional information, please feel free to contact me.

ADEQ Response 29:

ADEQ appreciates the request for this clarification. The comment is correct that a § 404 significant degradation analysis is distinct from an antidegradation review. However, ADEQ considers antidegradation review for individual § 404 permits to be satisfied by conducting a "significant degradation" review of a proposed discharge under the CWA § 404(b)(1) Guidelines, except in cases where a discharge may degrade existing water quality in an OAW or a water listed on the 303(d) List of impaired waters. In those cases, ADEQ will conduct an antidegradation review.

Comment 30: Tucson Audubon - Outstanding Arizona Waters

We appreciate the decision to keep protections for Outstanding Arizona Waters. In order to continue and strengthen bird habitats across Arizona, we need to continue protecting our healthiest waters through the OAW program. We encourage ADEQ to keep up the good work keeping strong OAW protections and, hopefully soon in the future, begin accepting new waters into the program.

ADEQ Response 30:

ADEQ appreciates the comment. While no new OAWs were adopted during this triennial review, ADEQ accepts nominations at any time. Any new nominations will be reviewed and considered in the next triennial review.

Comment 31: Tucson Audubon – Surface water definition

We are extremely concerned with ADEQ's proposed change to the definition of 'surface water' in R18-11-101. Confining the definition to 'navigable waters', further narrowed to 'waters of the United States" is an unnecessary and unreasonable step for ADEQ to take and has the potential to threaten protections for over 94% of Arizona waters given the current federal legal debate of the definition of 'Waters of the United States'. Arizona needs to maintain protections for springs, seeps, ephemeral, intermittent and effluent dependent or recycled waters. Like the GWAC, we subscribe to the One Water viewpoint. All water is precious. Tying our definition of 'surface water' to 'navigable waters' would be a step backwards in ensuring these protections and maintaining waters for nature and our citizenry alike. Instead, ADEQ should take this opportunity to maintain a consistent definition of surface water in Arizona as "waters of the state" in accordance with that statutory definition in A.R.S. §49-201(41).

ADEQ Response 31:

ADEQ disagrees with the assertion that this is an unreasonable modification. The modification does not narrow the application of the definition of "surface water" and is therefore not a step backwards. The practical application of the definition is the same. Please see the responses for Comments 4, 5, and 9 above.

Comment 32: Pima County Wastewater Reclamation – Numeric Standards – CAS Numbers

The CAS numbers of analytes throughout the document are wrong. A CAS number requires the dash between numbers. For example, the listed CAS of Acenaphthene in the proposed WQS is 83329. The correct CAS for this compound is 83-32-9. This is not a new issue.

ADEQ Response 32:

As the Chemistry Abstract System (CAS) number for any one chemical is a discrete set of integers, it can be referenced either with or without hyphens. The Department chose to remove the hyphens in 2009 to simplify use of the CAS numbers by staff and the public and to align with how the USEPA displays CAS numbers in their National Recommended Criteria Tables.

Comment 33: Pima County Wastewater Reclamation – Numeric Standards - 3,4-Benzfluoranthene

3,4-Benzfluoranthene (CAS: 205-99-2) is more commonly known as Benzo[b]fluoranthene in analytical methodology. Benzo[k]fluoranthene is already listed in the WQS, so naming conventions should be kept consistent.

ADEQ Response 33:

The Department agrees. Benzo[b]fluoranthene is the synonym for this chemical used in the USEPA's list of Priority Pollutants and will be used in these standards.

Comment 34: Pima County Wastewater Reclamation – Numeric Standards - 2-chloronapthalene

2-chloronapthalene (CAS: 91-58-7): This analyte is being renamed as "Chloronaphthalene beta" even though it is known as 2-chloronapthalene in all analytical methodology. The NIST WebBook lists 2- chloronapthalene as a primary name for this compound, and it should not be changed.

ADEQ Response 34:

Chloronaphthalene beta (CAS: 91587) is referred to in USEPA's Integrated Risk Information (IRIS) database as beta-chloronaph-

thalene. The "beta" was moved for alphabetizing and inadvertently left in place. The Department will use beta-chloronaphthalene.

Comment 35: Pima County Wastewater Reclamation – Numeric Standards - N-Nitrosodiphenylamine

N-Nitrosodiphenylamine (CAS: 86-30-6): This analyte is being renamed as N-nitrosodipropylamine on Page 45, which is incorrect.

ADEQ Response 35:

The Department agrees and will correct this typographical error.

Comment 36: Pima County Wastewater Reclamation – Numeric Standards - Demeton

Demeton (CAS: 8065-48-3): The CAS listed in the Draft appears incorrect. The NIST WebBook provides a CAS Number of 126-75-0 for Demeton-S.

ADEQ Response 36:

As per EPA's integrated Risk Information System database, 8065-48-3 is the correct CAS reference. The Department has chosen to simplify the number to 8065483, as it is referenced in the National Recommended Criteria Tables.

Comment 37: Pima County Wastewater Reclamation – Numeric Standards - Nonylphenol

Nonylphenol (CAS: 104-40-5): This compound is listed only as Nonylphenol in the WQS, which is a broad term for all possible nonylphenol structures, and is not specific as listed. The CAS of 104-40-5 refers strictly to the single analyte of 4-n-Nonylphenol.

ADEQ Response 37:

EPA's2005 Ambient Aquatic Life Water Quality Criteria document for nonylphenol states that: "CAS numbers 104-40-5 (phenol, 4-nonyl-) and 25154-52-3 (phenol, nonyl) have also been used to describe these compounds." As such, no change will be made.

Comment 38: Pima County Wastewater Reclamation – Numeric Standards - 1,2,4,5-Tetrachlorobenzene

1,2,4,5-Tetrachlorobenzene (CAS: 95-94-3): This is the proper naming convention, as opposed to what is in the WQS (Tetrachlorobenze,1,2,4,5-)

ADEQ Response 38:

The "1,2,4,5-" was moved for alphabetizing and inadvertently left in place. The Department will correct to 1,2,4,5-Tetrachlorobenzene.

Comment 39: Pima County Wastewater Reclamation – Numeric Standards - 4-Chlorophenyl phenyl ether

4-Chlorophenyl phenyl ether (CAS: 7005-72-3): The Bromine analogue of this analyte is listed in the WQS as p-bromodiphenyl ether. The naming conventions should be similar, whether the decision is to rename the bromine analogue 4-Bromophenyl phenyl ether, or to name the chlorine analogue p- chlorodiphenyl ether.

ADEQ Response 39:

Both chemicals are referenced by either synonym in USEPA databases. The Department will change p-bromodiphenyl ether to 4-Bromophenyl phenyl ether to match the naming convention used in the CWA list of Priority Pollutants.

Comment 40: Pima County Wastewater Reclamation – Numeric Standards – Analytes with "No Data"

The following analytes have been added to the WQS, but are accompanied by No Data. What purpose will they have? Will limits be added later?

Analyte Name	CAS Number
2-Nitrophenol	88-75-5
4-Chlorophenyl phenyl ether	7005-72-3
Benzorghi]perylene	191-24-2
1 1-Dichloroethane	75-34-3

ADEQ Response 40:

These chemicals are listed as CWA Priority Pollutants. At this time there is no toxicological data in USEPA or ATSDR databases. The Department retains these chemicals in the Surface Water Quality Standards in order to fully address the list of Priority Pollutants and as place holders awaiting development of toxicological data.

Comment 41: Pima County Wastewater Reclamation – Numeric Standards – Analytical Standard Practice

The following analytes have been given limits that may be unreachable in standard practice. ADEQ should not set standards at levels that are not achievable by current analytical technology. Any proposed standards associated with these pollutants would go through a future triennial review process prior to being adopted.

Analyte Name	CAS Number	Proposed WQS Limit
Chrysene	218 01-9	0.6 ug/L
N-nitrosodi-n-propylamine	621-64-7	0.7 ug/L
Acrolein	107-02-8	3 ug/L
Demeton	8065-48-3	0.01 ug/L
Diazinon	333-41 5	0.17 ug/L

ADEQ Response 41:

Under the CWA, SWQS criteria must be based on "sound scientific rationale," sufficient to protect the designated use. 40 C.F.R. § 131.11(a). Notably, this requirement does not provide for economic considerations or industry standard practice. The Department sets the standards as they are calculated from the available toxicity data. This issue can be addressed in the AZPDES permitting process. If the Limit of Quantitation (LOQ) is higher than the applicable water quality standard, a permitee will use the analytical method with the lowest LOQ. In these scenarios, the permittee would report discharge monitoring results using special codes called NODI (No Detection Indicator) codes that list the result as either less than the detection limit or less than the limit of quantitation. These codes do not represent a permit violation.

Comment 42: Sierra Club – Grand Canyon Chapter; Friends of Arizona Rivers; Friends of the Sonoran Desert; Save the Scenic Santa Ritas; Center for Biological Diversity; Arizona Mining Reform Coalition; Cascabel Conservation Association; Maricopa Audubon Society *(hereafter "Conservation Groups")*– Surface Water Definition (from the letter dated March 28, 2019)

In light of proposed changes to federal definitions related to Waters of the United States (WOTUS), the definition of surface water in R18-11-101 should be strengthened to ensure protection of Arizona's unique desert watersheds. To limit water quality provisions to waters deemed to be navigable ignores the reality that ephemeral waters are critical for drinking water, ecological health, and recreation in the arid Southwest. "Surface water" should be redefined to include springs, ephemeral streams, and cienegas.

ADEQ Response 42:

As stated in the preamble discussing the change to the definition of "surface water," under the section titled "*New or Modified Definitions [R18-11-101]*," the definition of "surface water" in Article 1 has been intended, throughout the years, to align with the federal definition. This is because the definition establishes the foundation upon which ADEQ's federally based programs are built. Unless specifically authorized by the legislature, in applying these federal programs, ADEQ must be consistent with and no more stringent than the corresponding federal law. *See* A.R.S. §§ 49-104(A)(16); 49-255.01(B). Please see the responses to Comments 4, 5, 9, and 31 above.

Comment 43: Conservation Groups – Enforcement (from the letter dated March 28, 2019)

Regarding enforcement provisions, R18-11-120, we note that enforcement is narrowed to non-permitted discharge and that reference to A.R.S. Title 49, Chapter 2, Article 4 has been stricken from the rule. Restricting enforcement to non-permitted discharge and assuming that the Arizona Pollutant Discharge Elimination System (AZPDES) program alleviates the need for enforcement weakens water quality standard provisions. Violation of a permit should be enforced in state law the same as non-permitted discharge, because it essentially amounts to the same impacts. The river doesn't recognize the difference between the exceedance by a permitted facility and non-permitted discharge. This is especially concerning at this time, as multiple non-permitted discharges occurred in Queen Creek earlier this year, raising questions about how and when enforcement actions will be taken.

To exempt permitted facilities from R18-11-120 by stating that enforcement provisions should not apply to permitted facilities is moving in the wrong direction. We need strict provisions to prevent this kind of discharge, not exemptions for permit holders. Enforcement provisions should be clear, predictable and uniformly applied when non-permitted discharge occurs. R18-11-120 describes how occurrence of a non-permitted discharge will be determined, but makes no mention of what consequences the discharger will face. Removing reference to ARS49:2.4 creates lack of clarity regarding the range of ramifications for non-permitted discharges and the context in which such enforcement actions will occur. We understand that this was removed because the applicability of enabling legislation is assumed, but enforcement provisions need more clarity, not less. Removing reference to legislation enabling enforcement action and failing to craft any language describing what enforcement actions will occur while narrowing the scope of enforcement provisions to exclude permitted facilities raises concerns that violations of water quality standards will not be enforced in a meaningful way.

ADEQ Response 43:

ADEQ appreciates the concern for Arizona's waters and the protection of surface water quality standards. However, ADEQ does not believe the changes to the enforcement rule will adversely impact enforcement of surface water quality standards. First, the current iteration of the enforcement rule does not contemplate enforcement of AZPDES permits as evidenced by ADEQ's response to comments by EPA in the 2002 triennial review rulemaking. There, ADEQ stated that the rule did not regulate how discharge limits are set, or the enforcement of permit conditions. NFRM, 8 A.A.R. 1264, 1393 (Mar. 29, 2002). ADEQ has not weakened the rule by adding express language stating that it only applies to non-permitted discharges. Additionally, ADEQ can and does still take enforcement actions for violations of permit conditions and limits. A.R.S. § 49-261.

Second, removing reference to A.R.S. Title 49, Chapter 2, Article 4 does not create a lack of clarity regarding ramifications of non-permitted discharges. A rule is an agency statement of general applicability that implements, interprets or prescribes law or policy, or describes the procedure or practice requirements of an agency. A.R.S. § 41-1001(19). A statement or citation of statutory authority does not meet that definition and should not be included in a rule. *See* Office of Secretary of State & the Rulewriters' Consortium, *Arizona Rulemaking Manual* 2 (2011); *see also* AAC R1-1-401 (stating that Rulemaking notices shall be prepared, drafted and filed in accordance with the Arizona Rulewriters Manual). Similarly, explanatory statements should not be included in rule, but may be included in the preamble. *Arizona Rulemaking Manual* at 2. Therefore, while any reference to statute has been removed from the rule to conform with the definition of "rule" and the Arizona Rulemaking Manual, ADEQ clarifies here that all of the enforcement provisions of A.R.S. Title 49, Chapter 2, Article 4, including its provisions regarding civil penalties and criminal violations, remain in force.

Comment 44: Conservation Groups – Outstanding Arizona Waters (from the letter dated March 28, 2019)

Because these water quality standards are generally not done every three years as they should be, we think it is essential that ADEQ take greater care with them. As was noted in our previous comments, we are extremely disappointed that ADEQ did not consider the upper Verde River for designation as an Outstanding Arizona Water (OAW). Again, the standards are not reviewed very often and Sierra Club was told repeatedly to wait until this round of rulemaking to submit its OAW nomination for this truly outstanding water.

ADEQ Response 44:

ADEQ appreciates the comment and acknowledges that the triennial review process has not happened every three years in the past. However, ADEQ has now put in place a process to facilitate review of surface water quality standards every three years.

Regarding consideration of the upper Verde River as an OAW, ADEQ reviewed the nomination and issued a response letter to Sierra Club on September 11, 2018. ADEQ indicated that additional data was needed before ADEQ would be able to make a decision regarding this nomination. As stated in that letter, ADEQ is willing to discuss the nomination in greater detail to determine how ADEQ may be able to assist with additional data collection to satisfy OAW requirements.

Comment 45: Conservation Groups– Antidegradation (from the incorporated letter dated September 27, 2018 commenting on the *draft* NPRM)

The clarification in R18-11-107.01, relating to antidegradation is appropriate as a temporary impact to a water should not be "regularly occurring."

ADEQ Response 45:

Thank you for your comment.

Comment 46: Conservation Groups – Nutrient Criteria (from the incorporated letter dated September 27, 2018 commenting on the *draft* NPRM)

ADEQ should provide additional explanation relating the changes in R18-11-114 regarding nutrient criteria. While the agency says it will reflect flexibility" and will "ensure that downstream uses will also be protected, as necessary," we are concerned about the latter part of that and would like to hear more on how the agency will ensure that is the case. In its explanation, the words "as necessary," give us pause and concern. What is "as necessary?"

ADEQ Response 46:

The comment refers to R18-11-114, however, the content seems to refer to the clarifying modifications regarding applying nutrient criteria standards as prescribed in R18-11-109. If there is significant contribution of nutrients from any tributary to one of waters of the United States listed in the rule, it is then "necessary" to apply the nutrient criteria standard to the upstream tributary in order to protect nutrient water quality in the listed surface water. The determination of what is necessary to protect nutrient water quality in the listed surface water will be based on the volume, frequency, magnitude, and duration of the discharge, and the distance to the downstream surface water listed in the rule.

Comment 47: Conservation Groups – Mixing Zone (from the incorporated letter on *draft* NPRM dated September 27, 2018)

Regarding mixing zones in R18-11-114, we find removing the explicit length limit of 500m and replacing that language with "as small as possible" problematic, as it is ill-defined and thus unenforceable. We understand the reasons for this, but the Arizona Department of Environmental Quality (ADEQ) must find a solution that is clear, quantifiable, and enforceable, otherwise, it is all too likely that the size of the mixing zone will become whatever the regulated entity desires. We appreciate the clarification that a mixing zone cannot be lethal or acutely toxic for organisms passing through it.

ADEQ Response 47:

ADEQ has removed the 500 meter criteria and replaced it with "as small as possible" to limit the size of the mixing zone to the actual size (as demonstrated through modeling for non-rapid and incomplete mixed discharge scenarios) and provide greater flexibility to permittees for requests associated with non-acutely toxic pollutants (i.e. nutrients). The mixing zone size will need to be determined by the Permittee, and approved by ADEQ, in order to establish the mixing zone condition in the permit. The ADEQ Director has authority to approve or deny the mixing zone if it is determined a water quality standard will be violated outside of the mixing zone. (R18-11-114(E)(1)). ADEQ will also reevaluate the mixing zone during modification, or reissuance of an existing permit to determine if the size of the originally approved mixing zone is still appropriate. (R18-11-114(G)).

Comment 48: Conservation Groups – Outstanding Arizona Waters (from the incorporated letter on *draft* NPRM dated September 27, 2018)

We do not object to leaving the Outstanding Arizona Waters (OAW) designation process unchanged in this Triennial Review, although, as was noted in the process, there are things that could improve protections for Arizona waters, and are strongly support-

ive of retaining Davidson Canyon, Cienega Creek and other OAWs in their current designated status. We object the omitting the Upper Verde OAW nomination we submitted. While there may have been a needed change, such as the exclusion of the reach of the Verde from Sycamore to Oak Creek due to its status as impaired for E. coli, otherwise we have demonstrated the outstanding values of these waters and continue to request their designation as OAWs.

ADEQ Response 48:

ADEQ appreciates the comment. Regarding nomination of the upper Verde River as an OAW, please see ADEQ response to comment 44.

Comment 49: Conservation Groups – Variance (from the incorporated letter on *draft* NPRM dated September 27, 2018)

Regarding variance rule modifications in R18-11-122, we disagree with ADEQ's interpretation that variances must be permitted in this rule and that somehow omitting this provision would make the rule more stringent than federal requirements. There is no requirement that you have variances, just that if you do, they be included in the rule. This variance language is a loophole to ignore designated uses as it allows the water quality criteria to diverge from the designated use criteria for the water. Further, it allows variances for more than five years. At a minimum, ADEQ should set a tight timeline for these so-called "temporary" variances from water quality criteria. The explanation of the variances being either discharger or water body specific is less than adequate as well. Who gets the variance? The first ones to ask? We do not support application of variances and ask that ADEQ remove it from the draft rule.

ADEQ Response 49:

It is currently ADEQ's position that there should be an opportunity for a facility to request a variance where the facility cannot currently meet a water quality standard but it can be met in the future. This is a stance that ADEQ has had since 1996. See NFRM, 2 A.A.R. 1783, 1795 (May 17, 1996). ADEQ also notes that A.R.S. § 49-255.01(C) directs ADEQ to establish rules that "shall provide for.... [m]odifications and variances as allowed by the clean water act." EPA explains that variances are a tool States can use to improve to improve water quality over time with accountability measures to assure the public that progress will occur. ADEQ is simply modifying its rule to align with current EPA requirements. This rule is not a loophole, but rather another method to bring a facility into compliance with a water quality standard. As stated in the preamble above in the section titled "Variances Rule Modifications [R18-11-122]," ADEQ considers this to be a "vital tool to improving water quality in partnership with facilities."

A variance is a temporary change to a water quality standard that must be approved in rule. Once the variance is established in rule, it would be implemented through a discharger-specific AZPDES permit(s). ADEQ will review the variance during subsequent triennial reviews to ensure the highest attainable criteria is being met. The term of the variance must be a specified timeframe in rule and must only be as long as necessary to achieve the highest attainable condition. Specific criteria need to be met in order to successfully apply for a variance and obtain approval. Variances will only be issued if it is appropriate and in conformance with the rule. ADEQ notes that it does not currently have any active variances.

Comment 50: Conservation Groups– Appendix C (from the incorporated letter on *draft* NPRM dated September 27, 2018)

Regarding Appendix C and as we noted in previous comments, we do not support the site-specific standard for copper for Pinto Creek and ask that it be deleted in the draft rule. ADEQ must err on the protective end of the scale and adopt a more conservative and strict set of standards and strive for the best water quality possible in Pinto Creek to ensure that it is maintained to meet Aquatic and Wildlife standards. That means dischargers should have to do more to clean it up and help it attain the standards for copper. We attach our letter of May 30, 2017 specifically related to Pinto Creek to further document our position on this matter.

[Attached comments from above mentioned May 30, 2017 letter commenting on the ADEQ proposed Total Maximum Daily Load for Pinto Creek:

We have reviewed the TMDL analysis and find that rather than reducing the site specific standard for copper from 42 µg/L to 34 µg/L, the standard should be set at 26 µg/L, to protect the creek and dependent wildlife. Attached you will find a letter written by David Chambers, dated May 30, 2008, which articulates the factors to be taken into consideration to calculate the TMDL to ensure that Pinto Creek is maintained to meet Aquatic and Wildlife standards. Even with a reduction to 34 µg/L, the statement made in Mr. Chambers' letter of 2008 that ADEQ's choice of natural background "is higher than all of the EPA calculated values for impacts on aquatic organisms" is still true.

Attached you will also find notes from visits to numerous sites along Pinto Creek, detailing impacts to the creek from roads and mine tailings. The ecological significance of a remaining creek with perennial flow in the Sonoran Desert is such that it must be handled with caution and care. The more protective standard of 26 µg/L, or the calculated background minus the 8 µg/L margin of error, should be adopted. The Arizona Department of Environmental Quality (ADEQ) has not adequately determined natural background, because it is based on samples taken from tributaries, which while assumed to be relatively unaffected by anthropogenic sources are typified by well over a hundred years of mineral exploration and extraction and still littered with abandoned mine shafts, open pits, tailings piles both large and small, and untold numbers of all of the aforementioned throughout the surrounding uplands. Because of this, it is extremely difficult to postulate that those referenced tributaries are unaffected by human activities. Further, with Carlota continuing to mine the Eder pits and with the planned expansion of the Pinto Valley Mine, it's imperative to set strict standards and strive for the best water quality possible in Pinto Creek. That is why ADEQ must err on the protective end of the scale and adopt a more conservative and more protective standard for Pinto Creek.]

ADEQ Response 50:

ADEQ has not reduced the site-specific standard for Pinto Creek in this rulemaking, and is not proposing any revisions to that standard during this triennial review. In 2016, ADEQ set the site-specific standard for dissolved copper in Pinto Creek at 34 µg/L. This was not a reduction of a previous standard, but was less than a previously-proposed, site-specific standard for Pinto Creek. ADEQ continues to rely on the justification it articulated in the 2016 rulemaking for the 34 µg/L standard. *See,* NFRM 22 A.A.R. 2333-34 (Sep. 2, 2016).

Comment 51: Conservation Groups – Outstanding Arizona Waters – Upper Verde River (from incorporated letter dated May 15, 2018, submitted in preliminary stages of this Triennial Review)

The Sierra Club – Grand Canyon Chapter has sought to nominate the Upper Verde for OAW designation since 2012. The ADEQ stated repeatedly that the Triennial Review would be the appropriate time for a nomination and consideration of such a nomination. The fact that changes to the language governing OAW designation are being considered is not a compelling reason to refuse to consider such a nomination now. Any time the rule is opened, changes to language may be proposed. Changes may be considered concurrently with consideration of nominations based on the language that existed at the time of nomination. We ask that ADEQ consider the nomination of the Upper Verde River for OAW during this rulemaking process.

ADEQ Response 51:

ADEQ appreciates the comment and considered a nomination to designate the Upper Verde as an OAW once it was determined that ADEQ would not revise the OAW program during this triennial review. See ADEQ Response 44 regarding ADEQ's response to this nomination.

Comment 52: Conservation Groups – Outstanding Arizona Waters (from incorporated letter dated May 15, 2018, submitted in preliminary stages of this Triennial Review)

We also strongly support keeping Davidson Canyon, Cienega Creek, and other OAWs as OAWs and urge ADEQ to work with stakeholders to ensure that the values for which this waters were designated are protected. As precious as our waters are in Arizona, we should not be looking at removing special designations and the accompanying protections.

ADEQ Response 52:

Thank you for the comment. ADEQ is not proposing any revisions to the OAW rule during this triennial review.

Comment 53: Conservation Groups – Outstanding Arizona Waters – "Good Water Quality" (from incorporated letter dated May 15, 2018, submitted in preliminary stages of this Triennial Review)

How can ADEQ define "good water quality" (R18-11-112(D)(3)) more clearly to avoid confusion in determining whether a water is eligible for OAW consideration? "Good water quality" should be removed from OAW criteria to avoid confusion. If water quality is sufficient to support the recreational and/or ecological values for which an OAW was designated, no further consideration of water quality should be required. Furthermore, requiring "good water quality" may incentivize pollution of a reach by entities seeking to prevent any such future designation, and rigorous water quality monitoring is unfortunately prohibitively expensive for public agencies and private nonprofit organizations. Once an OAW has been established for outstanding recreational and/or ecological values, water quality should not be allowed to be degraded in any way that would impact those values, and all examination of water quality should be in the context of preserving those values.

ADEQ Response 53:

ADEQ acknowledges the concern that the "good water quality" provision of the OAW rule needs clarification, however ADEQ is not proposing any revisions to the OAW rule during this triennial review. This provision of the rule was the subject of Charter Question #1 of the OAW Workgroup convened in November 2017 to analyze the OAW rule and provide recommendations to ADEQ. There was no consensus within the Workgroup on how to update the "good water quality" provision in the rule, and opposing arguments were summarized in a "Final Recommendations" document, posted on the ADEQ website at http://azdeq.gov/node/3933. ADEQ will consider the Workgroup recommendations during the next triennial review."

Comment 54: Conservation Groups – Outstanding Arizona Waters – Tier 3 Protection (from incorporated letter dated May 15, 2018, submitted in preliminary stages of this Triennial Review)

Once a water has become an OAW what action should be undertaken to ensure that it is being maintained and protected as a Tier 3 water under R18-11-107(D)? Again, OAWs should be eligible for establishment and continued designated status based on recreational and ecological values independent of water quality. Requiring nominating entities and/or ADEQ to provide baseline data prior to nomination would be unnecessarily burdensome, impractical, and counterproductive. ADEQ should consider establishing baseline data subsequent to an OAW listing. Also, if available information points to a new source of degradation in an OAW, steps should be taken to identify and address the source.

ADEQ Response 54:

ADEQ acknowledges the concern that the "baseline water quality" provision of the OAW rule is problematic for nominations. However, ADEQ is not proposing any revisions to the OAW rule during this triennial review. This provision of the rule was the subject of Charter Question #2 of the OAW Workgroup, which was convened in November 2017 to analyze the OAW rule and provide recommendations to ADEQ. The Workgroup discussed but did not agree on a solution to the baseline water quality issue. The Workgroup discussion was summarized in the "Final Recommendations" document, posted on the ADEQ website at http://azdeq.gov/node/3933.

Comment 55: Conservation Groups – Outstanding Arizona Waters – Data from OAWs (from incorporated letter dated May 15, 2018, submitted in preliminary stages of this Triennial Review)

What actions should ADEQ take if data show that water quality is degrading in or if impairment status is determined on a water that is listed as an OAW? If degradation or impairment is identified in an OAW, the water should be prioritized for action including identification of the source of degradation, cessation of the degradation, and restoration as needed. Removal of OAW designation must only occur through rulemaking, just as designation of OAWs occurs through rulemaking, and should be avoided. ADEQ should instead focus on protecting OAWs. As stated above, once an OAW has been established for exceptional values, water quality should not be allowed to be degraded in any way that would impact those values, so ADEQ should act long before values could be so degraded that any removal of designation could be justified.

ADEQ Response 55:

ADEQ recognizes the concern regarding degradation of water quality in an OAW. Degradation of water quality in an OAW was a topic addressed by the OAW Workgroup during the triennial review process, however ADEQ is not proposing any revisions to the OAW rule during this triennial review. The OAW Workgroup discussion of this topic can be found in the "Final Recommendations" document, posted on the ADEQ website at http://azdeq.gov/node/3933. ADEQ will consider the Workgroup recommendations during the next triennial review.

Comment 56: Conservation Groups – Outstanding Arizona Water – flow regime eligibility (from incorporated letter dated May 15, 2018, submitted in preliminary stages of this Triennial Review)

Should ADEQ consider modifying the flow-regime based OAW eligibility requirements in this rulemaking? If so, what changes are recommended by the workgroup, and why? As with reference to "good water quality," reference to flow regime should be removed from OAW eligibility requirements. If flow is adequate to support exceptional recreational and/or ecological values for which a water was designated, no further demonstration of flow should be required. Such requirements may be counterproductive by discouraging nomination, as flow data are not always available and, as many of our remarkable and truly outstanding waters are ephemeral. In addition to their support of plants and animals, they also help to recharge groundwater, something which is critically important in our arid state. Again, as with "good water quality," reference to flow may incentivize bad actors who wish to prevent future designations. Limiting designation based on flow regimes was added in 2002 to limit the nomination of OAWs. It was inappropriate then and it is inappropriate now.

ADEQ Response 56:

ADEQ acknowledges the concern regarding use of perennial or intermittent flows as a criterion for OAW nomination, however ADEQ is not proposing any revisions to the OAW rule during this triennial review. This flow regime question was the subject of Charter Question #4 of the OAW Workgroup convened in November 2017, to analyze the OAW rule and provide recommendations to ADEQ. No consensus was reached among the Workgroup members, but three positions were identified: 1) drop the flow requirement provision entirely, 2) retain the current language, and 3) limit OAW designations to perennial waters only. For more information, the Workgroup discussion was summarized in the "Final Recommendations" document, posted on the ADEQ website at http://azdeq.gov/node/3933. ADEQ will consider the Workgroup recommendations during the next triennial review.

Comment 57: Conservation Groups – Antidegradation – Temporary Impacts (from incorporated letter dated May 15, 2018, submitted in preliminary stages of this Triennial Review)

ADEQ is proposing that the temporary impacts to OAWs language found in R18-11-107.01 (C)(4) be moved to its own section (5) and clarify that the temporary impacts cannot be "regularly occurring."

Temporary impacts to OAWs should not be regularly occurring and should generally be a one-time impact. If they are regularly occurring, then they are not temporary and should not be allowed. A closer look at the actual impacts of a so-called "temporary impact" is needed. If it is temporary, but wipes out threatened or endangered species or destroys a healthy macroinvertebrate community, then is the impact really temporary? We also oppose the idea of extending temporary impacts to other kinds of permits.

Throughout its regulations, ADEQ should consider, and to the best of its ability manage and mitigate, the future impacts of climate change on Arizona's rivers. Our rivers will take the brunt of the impacts which the climatologists are predicting to be: 1) overall warming and drying, and 2)increased extremes in precipitation and stream flows (greater number of low flow conditions and a greater number of flash flood events). These changing conditions call for slower, steadier, cleaner releases of storm water from urban areas into washes and rivers, where riparian vegetation can assist with cleaning the flow.

ADEQ Response 57:

While this comment was incorporated in the Conservation Groups' formal comment letter, the comment regarding temporary impacts does not appear to apply to the current proposed rule. ADEQ is not proposing to move the "temporary water quality impacts" language into its own section. Also, it appears that ADEQ addressed the commenters issue that temporary impacts should not be regularly occurring as the proposed rule adds the phrase, "and are not regularly occurring," to R18-11-107.01(C)(4).

Regarding the request that ADEQ consider climate change in its regulations, ADEQ thanks you for your comment.

Comment 58: City of Phoenix - Numeric Standards - Appendix A – Provisional or Screening Data

The following table lists new or revised proposed standards derived using provisional data or screening values from the Environmental Protection Agency (EPA); this list may not be inclusive of all such examples in the proposed rule. Use of provisional or screening data for setting SWQS is questionable, particularly because the EPA reference document identifies several of these values as low confidence or inappropriate to derive a reference dose (RfD) for the parameter (e.g., thallium). In addition, 4,6-dinitro-o-cresol appears to use an inappropriate uncertainty factor. Several standards were also noted with Integrated Risk Information System (IRIS) data of low or medium confidence and/or inadequate carcinogenicity data. *Please justify use of the provisional data, screening data, and data with low confidence in developing SWQS, and provide an explanation of how the new or revised standards were derived using this data.*

Parameter/CAS Number	**Page**	**Relevant Standard** **DWS** (domestic water source) **FBC** (full-body contact) **PBC** (partial-body contact) **FC** (fish consumption)
Provisional or Screening Value		
bis(2-chloroethoxy)methane/111911	189, 193, 196, 215	New: DWS, FBC, PBC
chloroethane/75003	189, 193, 196, 216	New: DWS, FBC, PBC

di-n-octyl phthalate/117840	194, 196, 217	Revised: FBC, PBC
4,6-dinitro-o-cresol/534521	190, 191, 194, 196, 216	Revised: DWS, FC, FBC, PBC
parathion/56382	190, 192, 195, 197, 217	New: DWS, FC, FBC, PBC
thallium/7440280	192, 195, 197, 218	Revised: FC, FBC, PBC
IRIS data of low or medium confidence/ inadequate carcinogenicity data		
n-nitrosodi-n-phenylamine OR n-nitrosodipropylamine/86306	195, 197, 217	Revised: FBC, PBC
n-nitrosodi-n-propylamine/621647	195, 197, 217	Revised: FBC, PBC
pentachlorobenzene/608935	190, 195, 197, 217	New: DWS, FBC, PBC
1,2,4,5-tetrachlorobenzene/95943	190, 195, 197, 218	New: DWS, FBC, PBC
toluene/108883	192, 195, 197, 218	Revised: FC, FBC, PBC
2,4,5-trichlorophenol/ 95954	190, 195, 198, 218	New: DWS, FBC, PBC

ADEQ Response 58:

ADEQ uses a hierarchical approach when considering data for use in the derivation of human health water quality standards. As many listed CWA Toxic and Priority Pollutants have no reference doses (RfDs) or cancer potency slope factors (CPSFs) published in the USEPA's Integrated Risk Information System (IRIS) database, in order to provide surface water quality standards that are protective of the health of the public, the Department defaults to the following ordered list of peer reviewed toxicological data when IRIS RfDs and CPSFs are not available:

- Provisional Peer-Reviewed Toxicity Values (PPRTV) used in EPA's Superfund Program.
- Minimal Risk Levels produced by the Agency for Toxic Substances and Disease Registry (ATSDR).
- California Environmental Protection Agency (CalEPA) values.

While these toxicity values are not expressly developed for the derivation of water quality standards for USEPA listed Toxic and Priority Pollutants, they provide valuable, peer reviewed benchmarks which allow the Department to derive water quality standards for the protection of human health where otherwise, there would be none.

ADEQ is very careful when selecting surrogate toxicity values to use in the derivation of Surface Water Quality Standards. All data used in the derivation, and the toxicity values themselves must undergo rigorous peer review, including independent external peer review. The USEPA IRIS database is always the first choice for toxicity values when they are available. If an RfD or CPSF is listed in the IRIS database, the data are considered adequate and have undergone internal and independent peer review. IRIS values are intended to be used by all USEPA programs and are only listed after undergoing cross programmatic evaluation.

Provisional Peer-Reviewed Toxicity Values (PPRTV) are developed according to USEPA Standard Operating Procedures (SOPs) and are derived after a review of the relevant scientific literature using the same methods, sources of data, and Agency guidance generally used by the EPA IRIS Program in the development of RfDs and CPSFs. All provisional toxicity values receive internal review by EPA scientists and external peer review by independently selected scientific experts.

Minimal Risk Levels are developed as a part of ATSDR's Congressional mandate to produce toxicological profiles (TPs) for hazardous substances found at National Priorities List (NPL) sites. The studies utilized in the development of these TPs are held to the highest standards of data collection, and the peer-review process validates that they are scientifically accurate and reflect current scientific or laboratory best practice with consistent, factual results. The proposed MRLs derived as a part of the TP development undergo a rigorous review process. They are reviewed by ATSDR's toxicologists, a panel of external peer reviewers, an interagency MRL workgroup, with participation from other federal agencies, including NCEH (CDC's National Center for Environmental Health), ATSDR, NTP (National Toxicology Program), NIOSH (National Institute of Occupational Safety and Health), and EPA; and are then submitted for public comment.

The California Environmental Protection Agency (CalEPA) Office of Environmental Health Hazard Assessment (OEHHA) is statutorily mandated by the State of California to carry out human health risk assessments on commercially available pesticides and other toxicants. OEHHA follows USEPA risk assessment methodology closely through the Standards and Criteria Work Group (SCWG), a Cal/EPA Intra-agency group. All studies go through both an internal (OEHHA) and external peer review process pursuant to Health and Safety Code Section 116365(c)(3)(D).

The commenter specifically references thallium and 4,6-dinitro-o-cresol. The Department's rationale for these pollutants is as follows:

Thallium: The Department bases the RfD for thallium on the 2012 PPRTV screening chronic provisional RfD. The State of California (CalEPA) derived the same value using the same study, toxic endpoint and uncertainty factors. Other states including Massachusetts, Minnesota, Michigan and New Jersey have also adopted this toxicity value. Beyond the principal study used in the development of the provisional RfD, there is evidence of kidney damage, blood pressure variations and alopecia in humans. Some human and animal data also suggest thallium may produce developmental toxicity. ADEQ believes that given the supplementary supporting data found within the IRIS Chemical Assessment Summary, there is ample evidence as to the toxicity of thallium and will retain the standard as proposed.

4,6-dinitro-o-cresol appears to use an inappropriate uncertainty factor: 4,6-dinitro-o-cresol is a low use chemical used in the plastics industry to inhibit polymerization in styrene. The Department is using the RfD from the 2010 USEPA PPRTV which derives a less stringent standard than the criterion published in the 2015 USEPA Update of Human Health Ambient Water Quality Criteria: 2-Methyl-4,6-dinitrophenol (a synonym for 4,6-dinitro-o-cresol) The reference have been changed in the preamble. The

Department will research using the USEPA 304(a) criterion in the next Triennial Review.

The commenter questions the use of "IRIS (US EPA) data of low or medium confidence/ inadequate carcinogenicity data". The Department's rationale for the use of these peer reviewed data is as follows:

The confidence designation given to data used in an IRIS assessment does not indicate the confidence in the derived toxicity value, but to the likelihood that more data might precipitate a change in the future. If a toxicity value is published in an IRIS assessment, this means that USEPA methodology has been followed and internal and external peer review have found the data adequate. Quantifiable evidence of human toxicity or carcinogenicity that can be used to determine IRIS toxicity values is rare and collected through episodic human epidemiological studies. Because of this, animal models are often the primary source of the data used in deriving toxicity values. When animal data are used, human data is often labeled as "inadequate." This is not an indication that the other IRIS data are inappropriate for deriving water quality standards, it means that data derived from animal models and other supporting evidence were used.

Comment 59: City of Phoenix - Numeric SWQS, Appendix A – Fish Consumption Data

The following table of proposed new FC standards derived by ADEQ using bioconcentration (BCF) data use reference documents that indicate these parameters are estimates (dinoseb), are derived using averages (chlorpyrifos, malathion), or the BCF value used is not specifically listed in the provided reference document (diquat, endothall). This list may not be inclusive of all such examples in the proposed rule, but are the instances noted by the City during our review. *Please provide the rational applied for using this BCF data, and provide an explanation of how the new standards were derived using this data.*

Parameter/CAS Number	**Page**	**Relevant Standard** **FC** (fish consumption)
chlorpyrifos/2921882	191,216	New: FC
dinoseb/88857	191,217	New: FC
diquat/85007	191,217	New: FC
endothall/145733	191,217	New: FC
malathion/121755	191,217	New: FC Note: The preamble (1455 ug/L) and rule (103 ug/L) have different values for the new FC standard. *Please provide correct value and justification for the calculation.*

ADEQ Response 59:

Because ADEQ separates the fish and water consumption uses in the Surface Water Quality Standards, water quality standards for our Fish Consumption use are calculated using bioconcentration factors (BCF) from USEPA documents or from the technical literature. BCFs are a measure of how much a pollutant in the water column will concentrate in the tissue over time. It is important to address bioconcentration for the fish consumption use because the standard, as calculated, is functionally a translator that guards against the buildup of the pollutant in question to concentrations that may pose a threat to those that may consume wild caught fish. Arizona has more than 27 different species of sport fish that can be taken and consumed by Arizona anglers. Each of those species occupies a different locus in the aquatic food web, depending on the community composition of each individual waterbody. Because of this variability in species, community composition and food web structure, the BCF value is, by necessity, a broad estimate.

If USEPA data are not available, data is gathered from peer-reviewed journals, the Extension Toxicology Network (EXTOXNET) and the U.S. National Library of Medicine among other sources. If multiple studies are available or a range given, a rounded mean is calculated for use in deriving standards. *Methodologies for Deriving Criteria for the Fish Consumption (FC) Designated Use*
Numeric water quality criteria for the fish consumption (FC) designated use were derived using the following equations:

For carcinogens:

$$\frac{70\text{kg} * 10^{-6}}{OCSF * 17.5\frac{grams}{day} * BCF}$$

Example: Aldrin

$$\frac{70*10^{-6}}{17*17.5*4670} = 0.00005\ \mu g/L$$

For non-carcinogens:

$$\frac{RfD * RSC * 70\ kg}{17.5\frac{grams}{day} * BCF}$$

Example: Chlorpyrifos $\frac{0.003*0.2*70}{17.5*2500} = 0.96$ µg/L (rounded to 0.1 µg/L)

In the carcinogen equation, 70 kg is the average weight of a human male in kilograms; 10^{-6} is the excess cancer risk level; OCSF is the oral cancer slope factor, 17.5 grams /day is the national average fish consumption rate, and BCF is a bioconcentration factor. In the non-carcinogen equation, RfD is the reference dose, RSC is the relative source contribution factor, 70 kg is the average weight of a human male in kilograms, 17.5 grams/day is the national average fish consumption rate, and BCF is the bioconcentration factor.

Malathion: The value listed in the Appendix A. table (103 µ/L) is a typographical error. The value listed in the preamble (1455 µ/L) is correct. The Department used the mean bioconcentration factor of 11 for edible fish tissue from the April, 2018 USDA Draft Human Health and Ecological Risk Assessment for Malathion in Exotic Fruit Fly Applications.

Comment 60: City of Phoenix - Numeric SWQS, Appendix A
The following table lists proposed revised PBC standards that were derived with no RfD listed in the provided reference documents. This list may not be inclusive of all such examples in the proposed rule, but were parameters noted by the City. Per the preamble, the RfD and relative source contribution (RSC) factor are used to calculate the PBC standard (page 195). *Please provide an explanation as to how these revised PBC standards were obtained with no RfD, and provide reference links.* In addition, the RSC factor used to calculate new standards using the non-carcinogenic formula for Arizona is not provided for FC, FBC, and PBC standards. *Please provide an explanation of the RSC values and how the RSC was used in the revised or new standard calculations for FC, FBC, and PBC.*

Parameter/CAS Number	**Page**	**Relevant Standard** **FBC** (full-body contact) **PBC** (partial-body contact)
bis(chloroethyl) ether/111444	193,196,215	Revised: PBC No RfD; Minimum Risk Level (MRL) is for inhalation.
2,6-dinitrotoluene/606202	194,196,216	Revised: PBC No RfD. Note: The reference document link for the RfD PBC and oral cancer slope factor (OCSF) FBC does not work.
n-nitrosodi-n-phenylamine OR n-nitrosodipropylamine/86306	195,197,217	Revised: PBC No RfD; no MRL provided.
n-nitrosodi-n-propylamine/621647	195,197,217	Revised: PBC No RfD; no MRL provided.

ADEQ Response 60:
Bis(chloroethyl) ether: Bis(chloroethyl) ether is a CWA Priority Pollutant, listed in the USEPA National Recommended Water Quality Criteria – Human Health Criteria Table and is classified by the USEPA as a B2, or *probable*, human carcinogen on the strength of causing hepatomas in hybrid mouse strains and being a direct acting mutagen in microbial studies. On this basis, the Department chose to use the OCSF to set a PBC standard in the absence of an available RfD. The resultant new standard is less stringent than the current PBC standard or the value listed in the USEPA Human Health Criteria Table. The Department believes this to be an important exception to the standard practice of using only RfDs when deriving PBC standards and has noted this excursion in the preamble. See the ADEQ decision criteria hierarchy in the *Methodologies for Deriving Criteria for the Partial Body Contact (PBC) Designated Use*.

2,6-dinitrotoluene: The Department used the PPRTV chronic provisional reference dose of 0.0003 $(mg/Kg\text{-}d)^{-1}$ from the USEPA 2013 final Provisional Peer-Reviewed Toxicity Values for 2,6-Dinitrotoluene. The reference document has been clarified in the preamble.

N-nitrosodiphenylamine: N-nitrosodiphenylamine is a CWA Priority Pollutant, listed in the USEPA National Recommended Water Quality Criteria – Human Health Criteria Table and is a B2, or *probable* human carcinogen on the strength of increased bladder tumors in male and female rats and DNA damage assays in rats. On this basis, the Department chose to use the OCSF to set a PBC standard in the absence of an available RfD. The resultant new standard is more stringent than the current PBC standard and less stringent than the value listed in the USEPA Human Health Criteria Table. The Department believes this to be an important exception to the standard practice of using only RfDs when deriving PBC standards and has noted this excursion in the preamble (see the ADEQ decision criteria hierarchy in the *Methodologies for Deriving Criteria for the Partial Body Contact (PBC) Designated Use*).

N-nitrosodi-n-propylamine: N-nitrosodi-n-propylamine is a CWA Priority Pollutant, listed in the USEPA National Recommended Water Quality Criteria – Human Health Criteria Table and is a B2, or *probable* human carcinogen on the strength of liver carcinomas and esophageal and tongue tumors in rats. Macaque monkeys also showed an increased incidence of hepatocellular carcinomas. On this basis, the Department chose to use the OCSF to set a PBC standard in the absence of an available RfD. The resultant new standard is more stringent than the current PBC standard and less stringent than the value listed in the USEPA Human Health Criteria Table. The Department believes this to be an important exception to the standard practice of using only

RfDs when deriving PBC standards and has noted this excursion in the preamble (see the ADEQ decision criteria hierarchy in the *Methodologies for Deriving Criteria for the Partial Body Contact (PBC) Designated Use*).

Comment 61: City of Phoenix - Numeric SWQS, Appendix A

The following table lists items that need additional explanation, substantive typographical errors and inconsistencies that were noted by the City during our review; this list may not be inclusive of all such examples in the proposed rule. The comment for each parameter is noted below.

ADEQ Response 61:

ADEQ has divided the table referenced in this comment based on parameter and has responded to each in turn. These comments and ADEQ's responses comprise Comments and Responses 62-74.

Comment 62: City of Phoenix - Numeric SWQS, Appendix A- acenaphthylene/208968 (pp.189, 193, 196, 215)

The provided preamble reference link for this new standard is for a different parameter: acenaphthene (CAS/83329). Please specify which parameter the new DWS, FBC, and PBC standards apply to and provide justification for these new standards. In addition, acenaphthylene is a new parameter, there should be no strikethrough text "cenapthylene" in the proposed rule.

ADEQ Response 62:

Acenaphthylene: The reference to "cenapthylene" in the proposed rule was a carryover from a transcription mistake in the draft and has been deleted in the proposed rule.

For the polycyclic aromatic hydrocarbons (PAH) with no published RfD or OCSF, the Department uses the toxicity endpoints from benzo[*a*]pyrene and anthracene as surrogates to calculate standards for carcinogens or non-carcinogens, respectively. This use is based on data indicating PAHs that cause cancer are typically first modified by enzymes found in living tissue into compounds that react with DNA, causing mutations to occur. When DNA associated with cell replication is affected, the result can sometimes be cancer. Mutagenic PAHs, such as benzo[*a*]pyrene, usually have a "bay region," a pocket with four or more sides in its molecular structure that increases reactivity of the molecule with DNA. There is no convincing evidence that the PAHs lacking a bay region structure (acenaphthene, acenaphthylene, and fluorene) are genotoxic. Because of this difference in structure, the Department chose to use the RfD from the closely related acenaphthene to calculate the standard for acenaphthylene rather than the surrogate toxicity endpoints used for carcinogenic PAHs (benzo[*a*]pyrene).

Comment 63: City of Phoenix - Numeric SWQS, Appendix A- benz(a)anthracene/ 56553 (pp.193, 215)

The preamble (47.0 ug/L) and rule (0.47 ug/L) have different values for the revised FBC standard. The nomenclature of this parameter is inconsistent throughout the rule and preamble. *Please provide the correct revised FBC standard, justification for the standard, and correct parameter nomenclature.*

ADEQ Response 63:

Benz(a)anthracene: The FBC standard listed in the preamble is correct. Appendix A. will be corrected to reflect the 47 µ/L value. This standard is based on the USEPA OCSF of 7.3 $(mg/Kg\text{-}d)^{-1}$ for the polycyclic aeromantic hydrocarbon benzo (a) pyrene, which is used as a surrogate in this instance. Typographical errors in the nomenclature will be corrected throughout the document. See the discussion under acenaphthylene (Response 62) for an explanation of the use of toxicological surrogates for PAHs.

Comment 64: City of Phoenix - Numeric SWQS, Appendix A- bis(chloromethyl)ether/ 542881 (pp.193, 215)

EPA 304(a) criteria is used to determine the new FBC standard. There is no justification for use of the EPA 304(a) criteria for determining the FBC in the preamble pages 192 – 193. In addition, please specify which EPA 304(a) criteria is used. The only 304(a) values listed by EPA are: Human Health for the consumption of Water + Organism 0.00015 µg/L and Human Health for the consumption of Organism 0.017 µg/L. *Please justify the use of the EPA 304(a) criteria for the FBC standard and how the standard was calculated.*

ADEQ Response 64:

Bis(chloromethyl)ether: Bis(chloromethyl)ether is a class A, demonstrated human carcinogen on the basis of statistically significant increases in lung tumors observed in six studies of exposed workers. The reference to the Clean Water Act 304(a) human health ambient water quality criterion noted in the preamble was in error. The Department used the USEPA IRIS OCSF of 220 $(mg/Kg\text{-}d)^{-1}$ to calculate the FBC standard.

Comment 65: City of Phoenix - Numeric SWQS, Appendix A - dissolved cadmium/7440439 (pp.215-216)

For all Aquatic &Wildlife standards, the specific Table reference (2 or 3) and footnote d (hardness) have been removed from Table 1. *Please include the appropriate table number for each standard and clarification if footnote (d) still applies to dissolved cadmium.*

ADEQ Response 65:

The corrections to the tables and footnotes have been made.

Comment 66: City of Phoenix - Numeric SWQS, Appendix A -dissolved chromium III/16065831 (pp.200-201, 216, 219-220)

For the chronic A&Wc, A&Ww and A&Wedw standards, the preamble states that Appendix A, Table 4 was updated to correct a rounding error at hardness 20 mg/L from "19.8 µg/L" to "10.8 µg/L." In the 2009 rule, this standard was "19.84 µg/L" at hardness 20 mg/L. *There does not appear to be a typographical error. Please provide an explanation of this typographical error or revert back to the current standard.*

ADEQ Response 66:

Dissolved Chromium III The commenter is correct. The published draft standard for chromium III at a hardness of 20 (10.8) is a

typographical error. The value should be 19.8. The published formula returns the correct value as well.

Comment 67: City of Phoenix - Numeric SWQS, Appendix A - total chromium/7440473 (pp.193, 196, 216)

According to the preamble, total chromium FBC & PBC standards have: "Reverted to old standards despite lack of EPA data." These standards are lower than those for total chromium III and chromium VI. Chromium III results are determined by subtracting chromium VI from total chromium so the total standard cannot be lower than the component standards. *Please provide justification for these new standards or remove.*

ADEQ Response 67:

Total Chromium The draft standard for total chromium was based on USEPA correspondence which stated that ADEQ..."*can't eliminate* (PBC and FBC total chromium standards) *without replacement. Ask ADEQ to correct in next triennial review.*" This statement was later retracted. As the Department currently has PBC and FBC standards for Chromium III and VI, the two species that make up total chromium, the Department removed the total chromium PBC and FBC standards.

Comment 68: City of Phoenix - Numeric SWQS, Appendix A - demeton/8065483 (pp.198, 216)

The proposed new Aquatic &Wildlife chronic standards do not match the EPA 304(a) criteria which is listed as 0.1 µg/L for Freshwater (chronic). *Please provide justification or correction for this difference.* This parameter has a typographical error in nomenclature on page 198.

ADEQ Response 68:

The commenter is correct. The typographical error will be corrected to match the USEPA 304(a) criterion of 0.1 µg/L for Freshwater (chronic).

Comment 69: City of Phoenix - Numeric SWQS, Appendix A - 1,4-dichlorobenzene/ 106467 (pp.194, 196, 216)

The PBC & FBC standards have been lowered significantly due to a "corrected mistake." *Please provide justification/background in the rule preamble for this corrected mistake.*

ADEQ Response 69:

In the 2009 triennial review rulemaking, ADEQ revised both the PBC and FBC standards for 1,4-dichlorobenzene from 560,000 µg/L to 373,333 µg/L, as explained in the preamble to the final rule. 14 AAR 4708, 4728; 4738 (December 26, 2008). The full text of the rule correctly listed the standard for FBC as 373,333 µg/L, but mistakenly replaced a comma with a decimal point for the PBC standard, listing it as 373.333 µg/L. During this current triennial review, ADEQ recognized that an error occurred and sought to correct the mistake. However, ADEQ incorrectly changed the FBC standard to mirror the PBC standard in the NPRM when it should have done the opposite. The correct standard for both the PBC and FBC uses is 373,333 µg/L, as derived using the ATSDR MRL of 0.4 mg/Kg/day found at https://www.atsdr.cdc.gov/toxprofiles/tp10-c8.pdf.

Comment 70: City of Phoenix - Numeric SWQS, Appendix A -mirex/2385855 (pp.195,197, 217)

The preamble states that the data used to calculate the revised FBC and PBC standards are the RfD. However, pages 195 and 197 of the preamble "data source" states changed OCSF and BCF. In addition, the link: https://oehha.ca.gov/chemicals/mirex does not appear to list the RfD, but the RfD is listed in the second link. *Please provide the RfD and clarify if the RfD is used to calculate the revised FBC and PBC standards, and ensure links are correct.*

ADEQ Response 70:

Mirex: The OCSF for mirex from the first OEHHA reference (18) was used to calculate the FBC standard. The PBC standard has been changed to reflect the IRIS RfD (0.0002) for mirex. The references have been changed in the preamble.

Comment 71: City of Phoenix - Numeric SWQS, Appendix A – nonylphenol/104405 (pp.200, 217)

The (chemical abstracts service) CAS number listed in ADEQ rule does not match the CAS number on the EPA 304a criteria (CAS 84852153). In addition, the Freshwater (acute) value in the EPA 304a criteria is 28 ug/L, not 27.8 ug/L as in the ADEQ rules. *Please provide justification or correction for these differences.*

ADEQ Response 71:

The 2005 USEPA Ambient Aquatic Life Water Quality Criteria document for nonylphenol states that: "CAS numbers 104-40-5 (phenol, 4-nonyl-) and 25154-52-3 (phenol, nonyl) have also been used to describe these compounds." Also in this USEPA criteria document, the final calculated Criterion Maximum Concentration (CMC) is 27.75 µ/L. The Department has rounded this value to 28 µ/L. No change will be made to the CAS number.

Comment 72: City of Phoenix - Numeric SWQS, Appendix A - oxamyl/23135220 (pp. 217)

A new FC standard has been added to rule, but is not noted in the preamble. *Please provide justification for this new standard.*

ADEQ Response 72:

A new standard was added because a new BCF of 3.1 was incorporated from the US National Library of Medicine, National Center for Biotechnology Information (NCBI). https://pubchem.ncbi.nlm.nih.gov/compound/oxamyl. The notation has been made in the preamble.

Comment 73: City of Phoenix - Numeric SWQS, Appendix A - paraquat/1910425 (pp.217)

A new FC standard has been added to rule, but is not noted in the preamble. *Please provide justification for this new standard.*

ADEQ Response 73:

A new BCF of 0.3 was incorporated from the Extension Toxicology Network (EXTOXNET) Pesticide Information Profile for Paraquat. http://pmep.cce.cornell.edu/profiles/extoxnet/metiram-propoxur/paraquat-ext.html. The notation has been made in the preamble.

Comment 74: City of Phoenix - Numeric SWQS, Appendix A - picloram/1918021 (pp.192, 217)

The reference link for the FC RfD is incorrect. In addition, the EPA RfD is 0.05 mg/kg/day not 0.07 mg/kg/day per the reference. *Please provide the correct link, correct RfD, and justification for the new FC standard.*

ADEQ Response 74:

The RfD referenced in the preamble and employed in the standard calculation is correct as per the USEPA IRIS database. A typographical error listed the reference for the RfD for permethrin in the preamble. The correct link to the picloram reference dose is https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0256_summary.pdf and has been incorporated in the preamble.

Comment 75: City of Phoenix - Proposed Numeric SWQS, Appendix A, Ammonia -Tables 11 to 17

More stringent standards for ammonia have been added due to the Unionidae mussel family, particularly "making the standard more stringent for waters where unionids are present" (preamble page 201). The preamble also states that "for the aquatic & wildlife cold and warm water uses, Unionidae will be assumed to be present unless a study is performed demonstrating that they are absent and there is no historic evidence of their presence, or hydrologic modification has altered the flow regime that would prevent their reestablishment" (page 201) However, this assumption of presence and therefore, application of this standard to the entire state is excessive based on current knowledge regarding the extent of this mussel family presence as detailed in the 2009 Arizona Game & Fish Department (AGFD) Heritage Grant Study I07011. *Please consider coordinating with AGFD to determine where probable habitat is likely present to more appropriately apply these standards.*

ADEQ Response 75:

While the number of locations where present or historic evidence of Unionidae has been found in the study by Dr. Meyers is relatively small, this is an artifact of the extent of the study and should not be construed as a historic range, or the potential range of a recovered population. Given that evidence of, or extant populations were found at altitudes from 80 ft. ASL at the southern border to over 8000 ft. ASL in the White Mountains, ADEQ will assume Unionidae to be present unless a study is performed demonstrating that they are absent and there is no historic evidence of their presence, or hydrologic modification has altered the flow regime in a way that would prevent their reestablishment.

The stated goals of the CWA are to restore and maintain the integrity of the Nation's waters. While Unionidae have been extirpated from large portions of the State's waters, the goal of the CWA to restore these waters necessitates intact and viable ecosystems, including native organisms. It is important that ADEQ address ammonia toxicity to unionids, where they occur or where they could be reestablished. It is the Department's position that perennial waters with either the A&Wc or A&Ww designated uses provide appropriate conditions for habitation by Unionid mussels.

Comment 76: City of Phoenix - Proposed Numeric SWQS, Appendix A, Ammonia -Tables 11 to 17

ADEQ has not applied the unionid mussel standard to A&Wedw "because effluent dependent waters are situated in channels that were dry prior to permitted discharges" (preamble page 201). However, the following waters that are classified as A&Ww in the Middle Gila also would fall under this category:

Urban Lakes – man-made isolated waterbodies.

Middle Gila Salt River segment "Below Interstate 10 bridge to the City of Phoenix 23rd Ave WWTP outfall at 33°24'44" N, 112°07'59" W" – segment of the Salt River for which the City has an AZPDES permit to create the Rio Salado Habitat Restoration Area. In addition, a hydrologic study to substantiate the modification of the flow regime in the Salt River, downstream of Granite Reef Dam and Tempe Town Lake seems excessive to prove unionid mussel absence.

Please consider classifying these surface waters as unionid mussel absent as these surface water cannot support the-Unionidae mussel species.

ADEQ Response 76:

An analysis will need to be conducted on a waterbody specific basis and consider water source, connectivity, historic flow regime, design intent and de facto public uses, among other factors. As the Middle Gila/Salt River segment in question was designated A&We prior to 2009, and the downstream segment is designated A&Wedw, this segment may meet the hydrological modification exemption due to upstream dams, long term dewatering, and channelization. As this segment is now designated A&Ww, a site-specific analysis considering these modifications, present sources of water, and historic dewatering will need to be performed. ADEQ will further consider the application of this rule to man-made, isolated waterbodies in the next triennial review.

Comment 77: City of Phoenix - Proposed Numeric SWQS, Appendix A, Ammonia -Tables 11 to 17

Please provide links to U.S. Fish and Wildlife Service guidance or protocols on how the permittee would conduct a study or survey demonstrating the presence / absence of the unionid mussel, which is not stated in the preamble and rule.

ADEQ Response 77:

As of this writing, there is no specific USFWS guidance for undertaking surveys for unionid mussels. Dr. Terry Meyers suggested the use of:

Strayer, David L. and David R. Smith. *A guide to sampling freshwater mussel populations*_(2003) American Fisheries Society, Monograph 8. Bethesda, Maryland. ISBN 1-888569-50-6.

*The Mollusks: A guide to their study, collection and preservation*_ Edited by Sturm, Pearce, and Valdes. A publication of the American Malacological Society. ISBN 1-58112-930-0.

Comment 78: City of Phoenix - Proposed Numeric SWQS, Appendix A, Ammonia -Tables 11 to 17

The City suggests adding a notation in the rule that the unionid mussel present standards do not apply to A&Wedw, Aquatic & Wildlife ephemeral (A&We) or to other classifications of waters that would be predominantly dry without permitted discharges.

ADEQ Response 78:

The Department has added notes clarifying the application of the ammonia standard to each table.

Comment 79: City of Phoenix - AAC R18-11-101, Definitions – "Critical flow conditions of the receiving water"

Please define "harmonic mean flow" which is used in section (c) of this definition.

ADEQ Response 79:

The EPA Technical Support Document For Water Quality Based Toxics Control (1991), defines the harmonic mean flow as "the number of daily flow measurements divided by the sum of the reciprocals of the flows. That is, it is the reciprocal of the mean of reciprocals." Because EPA's definition is consistent with the commonly understood definition of harmonic mean, ADEQ has not defined the term "harmonic mean flow" in the rule.

Comment 80: City of Phoenix - AAC R18-11-101, Definitions – "Pollution Minimization Program"

The City suggests changing "and" to "or" in the following statement: "...pollutant controls that will prevent or reduce pollutant loadings." Not all surface waters have established TMDLs.

ADEQ Response 80:

The definition the City is referring to is Pollutant Minimization Program (R18-11-101(34)). This definition was added in support of revisions to the variance language contained in R18-11-122. The definition is consistent with the federal definition found at 40 CFR 131.3(p), therefore, ADEQ will retain the proposed definition. The reduced pollutant loadings referred to in the definition are not explicitly related to TMDLs. The Pollution Minimization Program in this context refers to those actions taken by a permittee to reduce pollutant loadings where additional pollutant control technologies are not available.

Comment 81: City of Phoenix - AAC R18-11-101, Definitions – "Statistical Threshold"

Please add a definition for "statistical threshold" as it relates to the new E.coli reporting requirements.

ADEQ Response 81:

The term "statistical threshold" does not relate to new *E. coli* reporting requirements, rather it relates to how the proposed surface water quality standard was derived mathematically. Changes to AZPDES reporting requirements are addressed during the permitting process not in the triennial review. Please see Response 20 for discussion regarding the definition of Statistical Threshold Value.

Comment 82: City of Phoenix - AAC R18-11-101, Definitions – "Highest Attainable Condition"

ADEQ has removed the definition proposed in the informal draft rule for "Highest attainable condition" as it relates to variances/ R18-11-122, but does not provide justification for why this definition was removed from the proposed rule. The City suggests that a definition for "Highest attainable condition" be added to the rule.

ADEQ Response 82:

While ADEQ's informal draft included a definition of "highest attainable condition," ADEQ received negative comments regarding this informally proposed definition. For that reason, and given that the federal government did not define the term, ADEQ did not include the definition in its Notice of Proposed Rulemaking or the final rule.

Comment 83: City of Phoenix - AAC R18-11-101, Definitions – "Zone of Initial Dilution"

Please consider specifying the criteria for determining the "Zone of Initial Dilution" in the variance rule/R18-11-122, specifically the terms "small area" and "turbulence is high and causes rapid mixing with the surrounding water."

ADEQ Response 83:

ADEQ has adapted the "Zone of Initial Dilution" (ZID) definition from several different sources, which are summarized in the EPA Guidance Document titled, "Compilation of Mixing Zone Guidance Documents" found here: https://www.epa.gov/sites/production/files/2018-10/documents/compilation-epa-mixingzone-documents.pdf.

The ZID is applicable to toxic pollutants and the ZID's specific area or size would be characterized on a case-by-case basis using hydraulic modeling. The model determines the size of the ZID by evaluating how much dilution occurs initially (subsequently determines how rapidly mixing occurs) by using the critical flow conditions of the receiving water, critical flow condition of the discharge, and the upstream receiving water and discharge concentration variables. One can assume if there is a relatively high amount of water upstream in the receiving water compared to a relatively low amount of water in the discharge the dilution ratio will be larger and the size of ZID would be smaller compared to the alternative. Because these determinations will be made on a case-by-case basis, ADEQ will not specify criteria for the terms "small area" and "turbulence is high and causes rapid mixing with the surrounding water."

Comment 84: City of Phoenix – R18-11-107.01 Antidegradation Criteria

Under subsection (d) review of a Section 404 permit, it states that for an individual Section 404 permit, ADEQ will conduct an antidegradation review if the discharge may degrade existing water quality in an Outstanding Arizona Water (OAW) or a 303(d)-listed water. 404(b)(1) guidelines apply to discharges in all Waters of the U.S., not just OAW or 303(d)-listed waters. Please update this section to reflect 404(b)(1) antidegradation review requirements per 40 Code of Federal Regulations 230.10(c).

ADEQ Response 84:

ADEQ agrees that water quality antidegradation protections extend to all surface waters. It is ADEQ's position that, for purposes of individual § 404 permits, antidegradation review is satisfied by conducting a "significant degradation" review of a proposed discharge under the CWA § 404(b)(1) Guidelines, except in cases where a discharge may degrade existing water quality in an OAW or a water listed on the 303(d) List of impaired waters. In those cases, ADEQ will conduct an antidegradation review. R18-11-

107.01(D) was crafted to ensure antidegradation protections extend to all surface waters while accounting for the interplay between various facets of the § 404 permitting process and antidegradation review, and is not intended to be substantively different from the currently applicable antidegradation rule as approved by EPA on January 21, 2009. Please see the preamble section entitled *Legal Gap Modifications*, and Response 29.

Comment 85: City of Phoenix - AAC RIB-11-109, *E. Coli* bacterial Numeric Water Quality Standards

Please provide clarification regarding subsection (A) to explain how the new E. coli standard (sampling, reporting, exceedances, etc.) will be applied.

ADEQ Response 85:

ADEQ does not anticipate any changes in the current sampling or reporting procedures for E. coli. The change is to the criteria only. The Statistical Threshold Value (term replacing SSM) is statistically arrived at but does not require a statistical analysis to determine if monitoring data meets the value. Sample results will directly compared to the applicable STV. Any changes to AZPDES permit limits will occur during permit renewal following the adoption of the new criteria.

Comment 86: City of Phoenix - AAC RI8-11-122, Variances

ADEQ must comply with new federal regulations that say that variances are water quality standards, and must go through the rulemaking process when they were issued as part of AZPDES permits.

AAC R18-11-122(M) has been added, which states "Upon expiration of a variance, point source dischargers shall comply with the water quality standard." The AZPDES program and associated rules and permits should implement variance requirements for point source dischargers, and reference to point source dischargers should be removed from the SWQS. *The City suggests AAC R18-11-122(M) be removed.*

ADEQ Response 86:

As mentioned in the preamble, variances are now a change to a water quality standard pursuant to federal law and in Arizona water quality standards must be established by rule. See 40 C.F.R. § 131.14 and A.R.S. § 49-221(A). As of the promulgation date of this proposed rule, no ADEQ Permittee is operating under a variance. However, ADEQ is updating the variance rules to be consistent with federal law because variances can still be a vital tool to improving water quality in partnership with point source dischargers. Because variances are now a change to a water quality standard (although temporary) and can be discharger specific, the language in AAC R18-11-122(M) and all other references to point source discharges needs to be maintained in the SWQS in order to properly implement variances in Arizona consistent with the federal rule. For additional explanation of this rule, please see Response 49.

Comment 87: City of Phoenix - Appendix B-Surface Waters and Designated Uses. Middle Gila Watershed

ADEQ has incorrectly renamed "Indian School Park Lake" to "Steele Indian School Pond" because - per preamble page 202 - the "City of Phoenix changed the name of the waterbody." Indian School Park Lake is a Scottsdale lake, not a Phoenix lake. The current version of Appendix B correctly refers to the location of this lake at Indian School Road & Hayden Road, Scottsdale at 33°29'39" N, 111°54'37" W. *Please restore to the existing listing of this lake in Appendix B.*

ADEQ Response 87:

ADEQ renamed Indian School Park Lake to Steele Indian School Pond in the draft rule in error. We thank the City of Phoenix for this observation. The name will be reverted to the correct original name in the final rule.

Comment 88 and Response 88: Laboratories – Appendix A – Cost of testing more stringent standards.

A number of laboratories provided comments to assist ADEQ in preparing the Economic, Small Business, and Consumer Impact Statement. Generally, these responses indicated that testing for some of the more stringent levels set by this rulemaking could create a large costs to laboratories, and that some levels surpassed laboratories' current detection capabilities. ADEQ appreciates these comments, and has incorporated these comments into the Economic, Small Business, and Consumer Impact Statement. Please see also Response 41 for discussion regarding economic considerations in setting water quality criteria.

Comment 89 and ADEQ Response: Tempe Tourism Office – Economic Impact of Tempe Town Lake

ADEQ received data from the Tempe Tourism Office indicating the significant economic impact of Tempe Town Lake. ADEQ appreciates this information and has included it in the Economic, Small Business, and Consumer Impact Statement.

12. All agencies shall list other matters prescribed by statute applicable to the specific agency or to any specific rule or class of rules. Additionally, an agency subject to Council review under A.R.S. §§ 41-1052 and 41-1055 shall respond to the following questions:

There are no other matters prescribed by statute applicable specifically to ADEQ or this specific rulemaking.

a. Whether the rule requires a permit, whether a general permit is used and if not, the reasons why a general permit is not used:

Not applicable. This rulemaking is a water quality standards rulemaking and does not require a permit.

b. Whether a federal law is applicable to the subject of the rule, whether the rule is more stringent than federal law and if so, citation to the statutory authority to exceed the requirements of federal law:

The federal Clean Water Act and implementing regulations adopted by EPA apply to the subject of this rule, as described in section 5 above. This rulemaking is no more stringent than required by federal law. However, pursuant to A.R.S. § 49-221(B), ADEQ does have inherent authority to establish water quality standards for all waters of the state, including waters beyond those required to be regulated under the Clean Water Act.

c. Whether a person submitted an analysis to the agency that compares the rule's impact of the competitiveness of business in this state to the impact on business in other states:

No such analysis has been submitted.